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THE

MEDICAL GUIDE,

FOR THE USE OF THE

CLERGY, HEADS OF FAMILIES, AND JUNIOR PRACTITIONERS IN
MEDICINE AND SURGERY.

COMPRISING

A Family Dispensatory,

AND

PRACTICAL TREATISE

ON THE

SYMPTOMS, CAUSES, PREVENTION, AND CURE

OF THE

DISEASES INCIDENT TO THE HUMAN FRAME;

WITH

THE LATEST DISCOVERIES IN MEDICINE.

BY RICHARD REECE, M.D.

FELLOW OF THE ROYAL COLLEGE OF SURGEONS OF LONDON;
CORRESPONDING MEMBER OF THE SOCIETY OF PRACTICAL MEDICINE OF PARIS;
EDITOR OF THE MONTHLY GAZETTE OF HEALTH, &c. &c.

THE FOURTEENTH EDITION, WITH ADDITIONS.

Medicine is God's second Cause of Health.

LONDON:

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LONGMAN, HURST, REES, ORME, BROWN, AND GREEN,
PATERNOSTER-ROW.

1824.

WEDDING GUIDE

LITTLEINTON-COLONEL WILLIAM COMPTON

OF THE HONOURABLE RANK, MEMBER OF PARLIAMENT & COUNCIL OF ENGINEERS
OF THE ROYAL ENGINEERING COLLEGE;

THIS ENLARGED AND MUCH IMPROVED EDITION

OF

THE WEDDING GUIDE

IN ENGLISH,

AS A TREATISE OF MARRIAGE AND ESTATE FOR HIS

PUBLIC AND PRIVATE CHRACTER,

AS A FRIEND TO SCIENCE AND HUMANITY;

BY HIS MAJESTY'S ORDER,

AND HIGH ORIGINATED SERVANT,

RICHA RD REECE



LONDON:

Printed by A. & R. Spottiswoode,
New-Street-Square.

TO
LIEUTENANT-COLONEL WILLIAM COWPER,

OF THE HONOURABLE EAST INDIA COMPANY'S CORPS OF ENGINEERS
OF THE BOMBAY ESTABLISHMENT;

THIS ENLARGED AND MUCH IMPROVED EDITION

OF

THE MEDICAL GUIDE

IS INSCRIBED,

AS A TRIBUTE OF RESPECT AND ESTEEM FOR HIS

PUBLIC AND PRIVATE CHARACTER,

AS A FRIEND TO SCIENCE AND HUMANITY;

BY HIS VERY OBEDIENT

AND MUCH OBLIGED SERVANT,

RICHARD REECE.

No. 8. *Bolton-Row, Piccadilly.*

Nov. 1. 1823.

PREFACE.

NOTWITHSTANDING the determined opposition, works on domestic medicine have experienced from interested physicians and trading practitioners, a knowledge of medicine has been so generally diffused through every class of society by these publications, as completely to expose the whole system of medical mystification. That the efforts made by those members of the profession to prejudice the public against popular works on medicines, and their authors, arose from motives of jealousy and avarice, must be obvious to every unbiassed person. They were aware that a diffusion of knowledge, by enabling the public to distinguish the man of science from the pretender, would militate against their trade. It is ignorance alone that screens impostors, and puts them on a level with men of real merit. The mere pretender to medicine shrinks from the scrutinizing eye of intelligence, because the man of sense and knowledge is capable of detecting those who are unworthy of confidence. The *properly* educated physicians, such as the graduates of Edinburgh, on the contrary, court enquiry, and encourage every attempt to enlighten the public, relative to their profession, because to them the total ignorance of patients renders the practice irksome; they have also the gratification to find that patients who are capable of duly appreciating their abilities, place the utmost confidence in their judgment, and patiently await the result of their treatment.

Hippocrates says, "it behoves every man to be acquainted with medicine;" if such a knowledge were requisite in his day, how much more is it at the present time, when, so far from a general principle being established for the treatment of disease, a set of practitioners, (calling themselves regular physicians,) and licensed quacks, tamper with the lives of their fellow creatures solely to enrich themselves; broaching or adopting a variety of fanciful systems and remedies mostly in direct opposition to each other, thereby rendering medicine more to be dreaded than even disease itself. By these contemptible pretenders and impos-

tors the author has been assailed with torrents of abuse, for having dared to unmask their nefarious traffic and artifices ; but their illiberal opposition and unmerited censure have been more than counterbalanced by the encouragement he has experienced from the liberal part of the profession, and an enlightened public.

The Medical Guide is the result of thirty years' close study, aided by an extensive private and hospital practice. The very favourable reception it has met with demands the author's most grateful acknowledgement ; within the space of twenty years it has gone through thirteen extensive editions ; it has obtained the sanction of the medical men of this country, and of the continent, esteemed for skill and liberality ; and, at this time, it is in greater demand than any other medical work ; it has been translated into several languages on the continent, by physicians of the first eminence, and reprinted in America, circumstances which have encouraged the author to devote great attention to the present edition.

For the treatment of those diseases which, from motives of delicacy, the author has omitted in this work, he refers his readers to three pamphlets which he has lately published — viz.

No. 1. Appendix to the Gazette of Health, being a popular dissertation on certain diseases and their consequences, and those peculiar to the male sex.

No. 2. Addition to the Appendix to the Gazette of Health, containing directions for the use of the buchu leaves in stricture and irritative affections of the urethra, rectum, bladder, &c. &c.

No. 3. A Supplement to the Thirty-third Number of the Gazette of Health, being a dissertation on the treatment, &c. of diseases peculiar to the female sex.

To promote the object of the Medical Guide, the author publishes on the first of every month a number of a work, under the title of the Monthly Gazette of Health, at the price of one shilling, on the same plan as the *Gazette de Santé* of Paris, which, for public utility, has long maintained great celebrity on the continent.

The intention of this work is to communicate all new discoveries regarding the means of preserving health,

of curing the diseases incident to the human race, and of promoting domestic economy, and the comforts of every class of the community. It also contains an account of the composition of all the advertised remedies, and proprietary medicines, to enable the public to distinguish those which possess merit from such as are evidently dangerous. The artful practices of the regular and irregular quacks and pretenders, who, for the sake of lucre, are base enough to tamper with the lives of their fellow creatures, are also fully exposed.

To render this work generally useful, each number embraces —

1. An original article on the most effectual means of preventing and curing the disease or diseases that may prevail at the time of publication.

2. A selection from the foreign and domestic publications of such information as may tend to promote the professed object of the work.

3. Prescriptions of eminent physicians and surgeons, translated into English, with an account of the diseases for which they were proposed, and the effects which they produced.

4. Original communications on subjects respecting the means of preserving health, cheap methods of preparing articles of diet, family recipes, &c.

5. All discoveries in chemistry and other branches of philosophy that are likely to prove of public benefit, or to amuse and instruct the mind.

6. Any information that may be solicited by a correspondent, consistent with the professed object of the work, is given in the subsequent number.

The author has now nearly completed the eighth volume, each containing twelve monthly numbers, to the pages of which he appeals with the greatest confidence for having fulfilled his engagements; and he flatters himself that it contains more valuable matter than is to be found in any other periodical work. It may be regularly obtained of any respectable bookseller in the country.

For the accommodation of new subscribers, the back numbers have been reprinted five times, and are sold at the *Medical Hall*, 170. *Piccadilly*, at a reduced price.

THE

CHEMICAL AND MEDICAL HALL,

170. PICCADILLY,

OPPOSITE BOND-STREET,

Was established by the Author in the year 1800, to supply the public with *genuine* drugs, and the *choicest* chemical preparations, and to compound prescriptions with accuracy, on the most *reasonable terms*. The practice of adulterating drugs, and of substituting cheap articles for expensive ones, in the compounding prescriptions, &c., which prevails to an alarming degree, renders any observation on the advantages of such an institution unnecessary. The sanction it has experienced from the nobility, and the most celebrated chemical and medical characters in the United Kingdom, he considers a proof of its having been conscientiously conducted.

The Author having received from his friends residing in the East and West Indies, America, and in the country, many complaints of their commissions having been taken to the shops of chemists and druggists to be executed, although their agents were desired to apply to the Medical Hall, he begs to state, that no article is sold there without a printed label, expressive of its name, and of its having been obtained at the *Medical Hall*, 170. *Piccadilly*. This regulation he has adopted not only for the satisfaction of his friends, but for the support of the reputation of the Establishment.

MEDICINE CHESTS,

&c. &c.

The following Chests are kept at the MEDICAL HALL, properly fitted up for different Climates.

The Chests are neatly made of mahogany, and the Bottles of the best flint glass, with air-tight stoppers. The bottles, drawers, and pots, have titles on them expressive of their contents, with a numerical reference to the Book of Directions.

THE FAMILY DISPENSARY.

This Chest is described in the third page of this Work, and its contents enumerated in the fourth and fifth pages.

There are six sizes of this Chest. The price of the largest size completely fitted up, with Medicines, Book of Directions, &c., is £20 8 0

The SECOND SIZE, complete £17 10 0

The THIRD SIZE, with four bottles on the back, five on the front, nine in each wing, six in a drawer; three small and three large drawers; six pots for ointments and pills, furnished with medicines, pestle and mortar, graduated measure, funnel, scales and weights, spatula, bolus knife, lavement bag and pipe, syringe, book of directions, &c. complete £13 10 0

The FOURTH SIZE, containing the same articles as the Third Size, complete £10 6 0

The FIFTH SIZE, containing four bottles on the back, five on the front, six in each wing, six small ones in a drawer; four large and two small drawers; six pots for ointments and pills, furnished with medicines, pestle and mortar, funnel, measure, bolus knife, spatula, lavement bag and pipe, with book of directions, &c. complete £8 12 0

The SIXTH SIZE, containing three bottles on the back part, four in the front, six in each wing, six in a drawer; two drawers furnished with medicines, pestle and mortar, spatula, bolus knife, graduated measure, scales and weights, book of directions, &c. complete £6 6 0

THE

COUNTRY CLERGYMAN'S DISPENSARY.

This chest is made on a very cheap plan, and supplied with Black Bottles.

The FIRST SIZE contains

Eight half-pint bottles, for

Magnesia	Tincture of rhubarb	Flowers of sulphur
Epsom Salt	Mindererus's spirit	Senna leaves
Castor Oil	Cream of tartar	

Twenty-four wide and narrow-mouth square bottles, for

Huxham's tincture of bark	Sweet spirit of nitre	Salt of wormwood
Tincture of senna	Vitriolic ether	Peruvian bark
Ditto camomile and ginger	Antimonial wine	Ipecacuan powder
Spirit of lavender	Tincture of myrrh	Rhubarb ditto
Paregoric elixir	Diluted vitriol. acid	Jalap ditto
Spirit of hartshorn	Vol. tinct. of guaiacum	Camphorated powder
Ditto sal volatile	Cajeput liniment	Cretaceous powder
	Extract of lead	Gum arabic
		Purified nitre

Eight bottles in a drawer, for

Liquid laudanum	Antimonial febrifuge powder, commonly called James's fever powder.	Salt of steel
Essence of pepper mint		Basilic powder
Prepared calomel		Camphorated acetic acid
Emetic tartar		

Six pots in a drawer, for

Blistering plaster	Yellow basilicon	Aperient pills
Spermaceti ointment	Brown cerate	Squill pill

A large drawer, for

Diachylon plaster	Bolus knife	Pestle and mortar
Gum plaster	Box of scales and weights	Lavement bag
Lint		Tourniquet
Court plaster	Tyle	Probang
Leather	Graduated measure and funnel	Book of directions, &c.
Spatula		

Complete, with medicines £9 5 0

The SECOND SIZE, containing eight half-pint bottles, eighteen 4 oz. bottles, six small bottles in a drawer, six pots for ointment and pills, partitions for plasters, spatula, bolus knife, scales and weights, pestle and mortar, graduated mea-

sure, tyle, lavement bag and pipe, tourniquet, probang, and book of directions. Complete with medicines £8 6 0

The THIRD SIZE, containing, on the top, three half-pint bottles, twelve 4 oz., a large drawer with five small bottles, five pots, pestle and mortar, graduated measure, scales and weights, bolus knife. Complete, with medicines and book of directions £5 5 0

THE TRAVELLER'S DISPENSARY.

Made flat, for the Pocket of a Carriage.

Contains on the top *five bottles in a row, for*

Magnesia	Huxham's tincture of bark	Rochelle salts
Tincture of rhubarb		Cajeput liniment

Five smaller bottles in a drawer, for

Spirit of hartshorn	Essence of pepper-mint	Ipecacuan powder
Rhubarb powder	Antimonial powder or	Laudanum

A drawer, for

Court plaster	Scales and weights	Book of directions
Lint		

Complete £3 10 0

THE TROPICAL DISPENSARY.

For the EAST and WEST INDIES, AFRICA, and SOUTH AMERICA. Of this Chest there are four sizes.—The largest size contains in the upper division,

<i>Four pint bottles, for</i>		
Magnesia	Epsom salt	Mindererus's spirit
Peruv. bark powder		

Sixteen half-pint bottles, for

Tincture of rhubarb	Spirit sal volatile	Vol. tinct. guaiac gum
Paregoric elixir	Liquid laudanum	Comp. spirit of lavender
Castor oil	Camphorated spirit	Comp. tinct. of senna
Salt of wormwood	Cajeput liniment	Ginger powder
Concrete acid of lemon	Compound tinct. of bark	Extract of lead
Antimonial wine		

Thirty-two four-ounce bottles, for

Diluted vitriolic acid	Spirits of hartshorn	Comp. tinct. gentian
Tincture of myrrh	Tinct. ginger and camomile	Dover's powders
Æther	Sweet spirit of nitre	Antimonal powder
Rhubarb powder	Salt of steel	Alum
Jalap ditto	Gum arabic powder	Vitriolated zinc
Basilic ditto	Nitre powder	Muriated tincture of steel
Compound cretaceous ditto	Camphorated powder	Cascarilla powder
Tincture asafoetida	Aromatic tincture	Hoffman's anodyne liquor
Bals. Copaiivi	Prepared natron	Ipecacuan wine
Ipecacuan powder	Essence of peppermint	
Olive oil	Ditto cinnamon	
Oil turpentine		

In the drawers — partitions, for

Senna leaves	Flowers of sulphur	Tourniquet, probang, &c.
Peruvian bark, bruised	Different plasters	
Cream of tartar	Tow, corks, syringes,	

Twelve bottles, for

Prepared calomel	Acetic acid	Lunar caustic
Red precipitate	Essential salt of bark	Blue vitriol
Emetic tartar	Essence for tooth-ache	Opium powder
Smelling salts		Essence of pennyroyal

Eight pots, for

Mercurial ointment	Citrine ointment	Aperient pills
Yellow basilicon	Blistering plaster	Squill pill
Brown cerate	Spermaceti ointment	

Partitions for

Scales and weights, graduated measures, bolus knives, spatula, slab, &c.

The price of this chest, furnished as above, with book of directions, amounts to £16 10 0

SECOND SIZE ditto	13 15 0
THIRD ditto ditto	10 5 0
FOURTH ditto ditto	8 5 0

THE SEA MEDICINE CHEST,

For the Use of NAVY SURGEONS and CAPTAINS of MERCHANTMEN.

This Case is made of deal, and furnished with black bottles.

CONTENTS.*Eight wide and narrow-mouth two-quart bottles, for*

Olive oil	Epsom salt	Flowers of sulphur
Spirit of turpentine	Peruvian bark powder	Distilled vinegar
Rectified spirit of wine	Opodeldoc	

Sixteen one-quart narrow and wide-mouth bottles, for

Camphorated spirit of wine	Comp. tincture of gentian	Antimonal wine
Sweet spirit of nitre	Ditto ditto senna	Castor oil
Spirit of hartshorn	Oil of almonds	Magnesia
Huxham's tincture of bark	Extract of lead	Purified nitre
Aromatic tincture	Tincture of rhubarb	Gum arabic
	Paregoric elixir	

Twelve pint bottles, for

Vitriolic acid	Tincture of myrrh	Spirit of sal ammoniac
Nitric acid	Volatile tincture of guaiac Gum	Tincture of opium
Muriatic acid	Spirit of sal volatile	Prepared kali
Comp. tincture of benzoin	Acid elixir of vitriol	Æther

Thirteen half-pint bottles, for

Muriated tincture of steel	Prepared oyster shells	Tincture of squills
Crystallized acid of lemon	Refined camphor	Balsam Copai
Rhubarb powder	Aromatic spices	Tincture catechu
Jalap ditto	Tincture of asafoetida	Soluble tartar
	Hoffman's anodyne liquor	Gum arabic powder

Thirty four-ounce square bottles, for

Prepared calomel	Essence of cinnamon	Blue vitriol
Powdered opium	Prepared ammonia	Sugar of lead
Ipecacuan powder	Socotrine aloes powder	Prepared natron
Emetic tartar	Gum myrrh ditto	Golden sulphur of antimony
Ess. of peppermint	Granulated tin	Caustic alkali
Acetic acid	Red precipitate of mercury	Guaiac-gum powder
Dover's powder	White ditto	Cantharides ditto
Antimonal powder	Corros. sublimate of ditto	Hemlock ditto
Salt of steel	White vitriol	Sal ammoniac
Lunar caustic		Prepared steel
Comp. cretaceous powder		

Six boxes, for

Peruvian bark, bruised	Tow and leather skins	Blistering plaster
Senna leaves	Diachylon plaster	Strengthening ditto
Manna	Gum plaster	Mercurial ditto
Lint	Adhesive ditto	

Seven pots, for

Strong mercurial ointment	Yellow basilicon	The Edinburgh ointment
Brown cerate	Opiate confection	Conserve of hips

Five small pots, for

Cordial confection	Cathartic extract	Mercurial pills
Purified opium	Citrine ointment	
Scale and weights, pestle and mortar, spatula and bolus knives graduated measures, funnels, tyles, syringes, clyster syringes and pipes, panican, tourniquet, probang, &c. &c. Complete, with book of directions		
SECOND SIZE		£32 12 0
THIRD SIZE		18 10 0
		14 12 0

PORABLE CHEST OF CHEMISTRY.

On the top are partitions for forty-six bottles of different sizes, with wide and narrow mouths, for the following articles. Each bottle, independent of a label, has a number engraved upon it, that in case the paper label should be destroyed, the contents of the bottle may be ascertained by reference to the numerical arrangement of the Chemical Guide.

1. Black oxide manganese	18. Solut. acetite lead	32. Ditto mercury
2. Metallic zinc	19. Ditto oxalate ammonia	33. Sulphuret ammonia
3. Ditto nickel	20. Solut. nitrate lead	34. Solut. nitrate silver
4. Carbonate potass	21. Ditto sulphate manganese	35. Phosphuret lime
5. Sulphuric acid	22. Crys. boracic acid	36. Nitrate copper
6. Muriatic ditto	23. Solut. nitrate barytes	37. Muriate ammonia
7. Nitric ditto	24. Solut. muriate copper	38. Citric acid
8. Carbonate soda	25. Sulphuric æther	39. Solut. nitrate mercury
9. Ditto ammonia	26. Alcohol	40. Pure strontia
10. Muriate lime	27. Oxalic acid	41. Ditto barytes
11. Solut. pure potass	28. Metallic bismuth	42. Muriate cobalt
12. Ditto ammonia	29. Solut. succinate ammonia	43. Acetic acid
13. Ditto sulphate iron	30. Phosphorus	44. Tinct. soap
14. Prussiate potass and iron	31. Oxymuriate potass	45. Ammoniuret of copper
15. Tinct. galls		46. Solut. mur. gold
16. Solut. mur. tin		
17. Sulphuret potass		

In the Drawer there are six stopper Bottles, for the following Articles:—

47. Black flux	50. Glacial acid of phosphorus	51. Glass of borax, &c. &c.
48. White ditto		
49. Dried borax		

Four Tin Cases, for

Turmeric paper	Brazil paper	Gall paper
Litmus ditto		

Also a drawer for scales and weights, graduated measure, funnel, knives, pestle and mortar, microscope, blow-pipe, and other apparatus for chemical experiments, with a copy of the Chemical Guide.

LARGEST SIZE, complete	£25 10 0
SECOND ditto, ditto	15 10 0
THIRD ditto, ditto	10 10 0
FOURTH ditto, ditto	8 10 0
FIFTH ditto, ditto	5 10 0

THE MINERALOGICAL CHEST;

Containing Re-Agents, Implements, &c. for the Analysis or Examination of Mineral Productions.

FIRST SIZE, complete	£10 10 0
SECOND ditto, ditto	8 10 0
THIRD ditto, ditto	6 10 0

CHEST OF APPARATUS,

for Chemical Experiments;

CONTAINING A

Japan water bath	Glass alembic	oxygen apparatus for entertaining experiments
Table furnace	Two funnels	
Iron retort and conducting tube	Assortment of crucibles	
Three glass retorts	Three evaporating dishes	
Two receivers	Air flask with bent tubes	
Argand's lamp with brass stand, &c.	Set of air jars	
Two flasks	Set of hydrogen and	
Glass tube		£15 8 0

THE VETERINARY CHEST;

Or, Gentleman's Stable Dispensary.

The general advantages of this chest consist in the medicines being carefully prepared with drugs of the best quality, instead of the compositions generally sold for the use of horses, which possess little or no medicinal property. The cases are made with mahogany and oak, and furnished with common glass bottles.

It contains one large Drawer, with Partitions, for

Cathartic balls	Cough balls	Foenugreek powder
Strong ditto	Alterative Powders	Antimony ditto
Worm ditto	Nitre powder	Liver of ditto,
Alterative ditto	Flowers of sulphur	&c. &c.
Diuretic ditto	Aniseed powder	
Cordial ditto	Liquorice ditto	

Nine Bottles in the Top Part, for

Spirit of wine and camphor	Oil of wild thyme	Laudanum
Ditto of turpentine	Embrocation for sprains	Distilled vinegar, &c.
Opopellic	Goulard's extract	

Four Tin Cases, with Partitions, for

Blistering, or Spavin ointment	Alterative, or Grease ointment	Healing ointment
	Cooling ditto	Mercurial ditto Digestive ditto, &c.

Six small Bottles, for

Corrosive sublimate	Butter of antimony	Red precipitate, &c.
Lapis infernalis		From £7 10 to £12 6 and upwards.

PART I.

THE FAMILY DISPENSATORY.

FOR the basis of a Family Dispensatory, the author has selected those drugs, &c. with which one person, at least, in every village should be provided.* The advantages of such a provision, as a means of affording relief to the sick and indigent, and an immediate resource in cases of urgency, (where the remedy should be *promptly* administered to be effectual,) have been admitted even by authors who oppose the general introduction of Domestic Medicine.

* In a "Dissertation on the Means of preserving Health," Dr. Disney Alexander observes, "If clergymen who live in the country, and gentlemen who reside upon their own estates, would devote a small portion of their time to the study of medicine, it is incalculable how much good they might render to the poor families in their several neighbourhoods in this respect. The *timely* exhibition of a few doses of physic in the beginning of a disease, with a few plain directions concerning cleanliness, regimen, &c., would be no degradation to their character, and might frequently prevent the extension of those infectious fevers to which the lower classes of people are sometimes subject, and which, not unfrequently from neglect and inattention, prove fatal to the youngest, most robust, and most useful part of the community." The tribute of applause is never more justly due, nor more honourably conferred, than when it is bestowed on those who exert their influence and employ their talents in lessening the sum of human misery; who sit by the side of affliction, promoting the recovery of health, and mitigating the anguish of disease.

The exercise of charity in the alleviation of the diseases of necessitous individuals, is, of all others, the most useful and commendable. What satisfaction can, indeed, be equal to that of mitigating the sufferings of our fellow-creatures, during the period of indisposition, or of checking its fatal progress? To a heart glowing with the true spirit of Christianity, nothing can possibly be more gratifying than the conviction of having been instrumental in restoring the bloom of health to the wan and faded cheek of poverty and disease. *

Independent of these advantages, a Family Dispensary is unquestionably of great utility, as a preservative against the serious mistakes which too frequently happen in the country, through the ignorance or carelessness of young men employed in the shops of druggists and apothecaries, by using arsenic, corrosive sublimate, &c. for articles which resemble them in appearance. †

* The poor are my best patients, said the immortal Boerhaave, because God is their paymaster.

† The new names of drugs adopted by the Colleges of Physicians of London, Edinburgh, and Dublin, in their late Pharmacopœias, and the alterations they have made in the strength of the different preparations, have been productive of the most serious mischief to the community. When the names of drugs become familiar to the public, these bodies consider it a sufficient reason for making a new Pharmacopœia; and the mere change of names is represented to be a most important improvement in medical science!! In the London Pharmacopœia of 1787, corrosive sublimate of mercury is termed muriate of mercury; and in the last edition, calomel is named *sub-muriate of mercury*. From the similarity of these names, corrosive sublimate has been frequently exhibited instead of calomel; and the sudden death of the unfortunate patients has been attributed to the rupture of an internal blood-vessel!! Paregoric elixir, a very useful popular remedy, ignorance itself could not confound with laudanum; but now they are both tincture of opium; and only a third word, marked in general by the single initial C., which in hasty or careless writing may be easily taken for a flourish of the pen, distinguishes a medicine of drops from one of a spoonful, and discriminates to the apothecary's boy the quietus of a cough, from the quietus at once of cough and life!! Under the old

Those who are acquainted with the nefarious practices of many wholesale dealers in drugs, by whom the retailers in the country are chiefly supplied, will likewise admit the very important advantages of a chest of medicines from a source, in which implicit confidence may be placed ; for to such an alarming pitch is this traffic now carried, that articles in powder are sold by wholesale druggists at one-third the price they are in substance!! Imitations of drugs, both in substance and powder, are also sold, which do not contain a grain of the article of which they bear the name.

Various plans of a Family Medicine Chest have been recommended by medical writers. In the chest termed the *Family Dispensary* the contents are arranged to correspond with the following numerical order, so as to prevent the possibility of mistake *, viz.

Five Bottles in the Back Part, contain

1. Magnesia 2. Epsom Salt 3. Castor Oil	4. Tincture of Rhubarb 5. Cajeput Liniment, or Opodeldoc
---	--

nomenclature no mistake could be well committed ; but under the new one, *let him who takes medicine from a common druggist's shop tremble*. What, indeed, with the new names, and the prevailing practice of adulterating drugs, medical aid is become a worse enemy than disease ; and the greatest of these evils invades us under the specious garb of *improved* science. The lives of the members of the legislature, and those that are most dear to them, being thus involved, it becomes their immediate interest, putting the cause of humanity out of the question, to withdraw the indirect sanction they have given to these practices. In order to avoid the mischief that daily arises from those wanton innovations, every patient would do right to insist upon the physician or surgeon he may consult, to make use of the old names, and to write his prescription in English. This request will put his professional knowledge to the test, for if he be a man of science he will not hesitate to comply with it.

* This chest may be obtained at the Medical Hall, 170. Piccadilly.

Five Bottles in the Front, for

6. Comp. Tinct. of Bark, or	9. Com. Spirit of Lavender
7. Tinct. Ginger and Camo- mile	10. Mindererus's Spirit
8. Com. Tinct. of Senna	11. Paregoric Elixir

Nine Bottles in the Right Wing, for

12. Spirit of Hartshorn	17. Tincture of Myrrh
13. Spirit of Sal Volatile	18. Dilute Sulphuric Acid
14. Vitriolic Æther	19. Tincture of Assafoetida
15. Sweet Spirit of Nitre	20. Volatile Tinct. of Guaiac
16. Antimonial Wine	Gum

Nine Bottles in the Left Wing, for

21. Salt of Wormwood	26. Rhubarb Powder
22. Crystall. Lemon Acid	27. Jalap Powder
23. Ipecacuan Powder	28. Camphorated Powder
24. Essential Salt of Bark, or	29. Com. Cretaceous Powder
25. Salt of Steel	30. Extract of Lead

Nine small Bottles in a Drawer, for

31. Liquid Laudanum	36. Basilic Powder
32. Essence of Peppermint	37. Antimonial Powder
33. Essence of Cinnamon	38. Camph. Acetic Acid
34. Prepared Calomel	39. Tincture for Tooth-ache
35. Emetic Tartar	

Six Pots in a Drawer, for

40. Blistering Plaster	44. Savin Ointment
41. Spermaceti Ointment	45. Squill Pill
42. Brown Cerate	46. Aperient Pills
43. Yellow Basilicon	47. Lenitive Electuary

Six Drawers in the Front, with Partitions, for

48. Peruvian Bark, or Rhatany Root Powder	54. Cream of Tartar
49. Jamaica Ginger Powder	55. Flowers of Sulphur
50. Senna Leaves	56. Court Plaster
51. Flaky Manna	57. Lint and Plaster Skins
52. Gum Arabic Powder	58. Diachylon
53. Purified Nitre Ditto	59. Ditto with Gum
	60. Carbonate of Soda

Two large Drawers in the Front, for

Pestle and Mortar	Spatula, Bolus Knife
Graduated Ounce Measure	Funnel and Tyle
Ditto, Drop ditto	A Lavement Bag, with Pipe
Scales and Weights	A Tourniquet

EXPLANATION OF WEIGHTS AND MEASURES.

20 Grains	make	1 Scruple	(3)
3 Scruples	- - -	1 Drachm	(3)
8 Drachms	- - -	1 Ounce	(3)
12 Ounces	- - -	1 Pound, or Pint.	(16)

The small round impressions on the thin weights stand for so many grains.

The graduated measure is marked from half a drachm to an ounce, and the drop measure from one to thirty drops.

The doses specified throughout this work are for adults, which must be increased or diminished according to the strength and habit of the patient, and the age, by the Scale given under the head of Catalogue of Drugs, in the Appendix.

It is customary to repeat the dose of an aperient medicine about every four hours till it operates, or to employ a lavement, which, if the costiveness prove obstinate, and particularly when attended with pain in the bowels, is preferable to a repetition of strong cathartic medicines.

By a tea-spoonful, is meant one drachm — a table-spoonful, half an ounce — a wine-glassful, two ounces — and a tea-cupful, three ounces, or a quarter of a pint. A drop is generally considered to weigh a grain, so that sixty drops are reckoned equal to a drachm, or tea-spoonful; but, in all cases, the smallest doses should be measured, as drops greatly differ both in size and weight. Spoons likewise vary too much in size to be used as measures for the exhibition of potent medicines.

The following characters are in general use: —

R. (Recipe) Take

a aa or ana, of each

fs. the half — as $\frac{1}{3}$ fs. half an ounce

Cong. (Congius) a gallon

Cochl. (Colchleare) a spoonful,

Drugs are *retailed* in the quantities above a drachm, by avoirdupois or grocers' weights, and from a drachm, lower, by the troy or apothecaries' weight. In the compounding of medicines, the troy weight is always used. The avoirdupois or the grocers' weights differ very much from the troy or apothecaries', and, in consequence of grocers dealing in drugs, mistakes are often made in the *quantity* of an article. The grocers' pound contains sixteen ounces, and the ounce sixteen drachms. The pound also varies, for the grocers' pound contains 7000 grains, and the apothecaries' only 5760; hence the pound of the latter is less than that of the former by 1240 grains. But the apothecaries' ounce, on the other hand, is greater than the grocers' — the former containing 480 grains, and the latter 487½ grains. The measure of liquids also differs, one being used for beer and the other for wine. In medicine the latter is employed.

No. I. MAGNESIA.

This article, by neutralizing acid matter in the stomach, speedily relieves the painful sensation termed *heart-burn*, and with it forms an aperient medicine, which operates gently on the bowels. The dose is from a tea-spoonful to a dessert-spoonful. It operates most pleasantly when administered with an aromatic, as peppermint-water, or with two grains of ginger-powder or grated nutmeg in spring-water.

The purgative effects of magnesia *entirely* depending on its meeting with an acid in the stomach, it frequently happens that a small dose will operate more on the bowels than a large one, through there not being a sufficient quantity of acid present to dissolve it; and as it will not produce scarcely any sensible effect if an acid does not exist in the stomach, no reliance can be placed on it as a purgative. If a full dose of magnesia produce no aperient effect, the inference is, therefore, it has not met with a sufficient quantity of acid to dissolve it, in which case the patient should take a dessert-spoonful of lemon-juice to promote its aperient operation.

When acidity is the consequence of debility of the digestive organs, which in adults is generally the case, the beneficial effects of magnesia will be temporary, unless it be accompanied with an aromatic bitter, as the tincture of ginger and camomile, No. 7., or the aromatic tincture of rhatany root, which will prevent its recurrence by invigorating the stomach. When the complaint is obstinate, or of long standing, the prepared natron will prove more efficacious than magnesia, and being perfectly soluble in water, is also more pleasant to take. (See Prepared Natron, No. 60., and Lime Water.)

For correcting acidity in the stomach of children, attended with *costiveness*, magnesia, either alone or combined with a little rhubarb-powder, is an excellent remedy; but when attended with *looseness*, or what nurses term *griping stools*, the compound cretaceous powder, No. 29., will prove equally efficacious in neutralizing the acidity, and at the same time will restrain the violence of the purging. If the evacuations be not excessive, lime-water will answer best with a mild aromatic, as the absorbent mixture, No. 73. (See *Looseness, of Children.*)

The *calcined* magnesia has been preferred by some practitioners, on account of its not disengaging fixed air in the stomach and intestines, on uniting with an acid, which from the *common* magnesia is extricated in considerable quantity. Fixed air is, however, so very grateful to the stomach, as often to remove nausea, and, so far from increasing flatulency in the *intestines*, will often correct and relieve it, the two gases being very different in their nature; but, when the patient is much oppressed with air in the *stomach*, the calcined magnesia should be employed. (See *Flatulency.*)

The calcined magnesia, in the quantity of a tea-spoonful twice a-day, has been lately much recommended by Mr. Brande and others, as a remedy for the *red gravel*, and for correcting the gouty habit. A few cases of its accumulating in the intestines, to a considerable degree, are published in the eleventh number

of the Monthly Gazette of Health. This effect is to be attributed to its not meeting with a sufficient quantity of acid in the stomach to dissolve it. It has also been administered, in the dose of twenty grains twice a-day, by Dr. Dods, of Worcester, and other respectable physicians, with complete success, in confirmed cases of diabetes. If that quantity should produce more than two fecal evacuations daily, it may be given in a wine-glassful of lime-water.

Magnesia is frequently adulterated with chalk, which may be detected by putting a dessert-spoonful of the suspected magnesia into an ounce of the diluted vitriolic acid, No. 18. If the magnesia be *entirely* dissolved, and the solution remain *clear*, it may be pronounced pure, but not otherwise. If the experiment be made with the common magnesia, there will be a considerable effervescence; but, with the calcined, there should be none.

The magnesia sold in bottles at a most extravagant price, under the name of Henry's magnesia, is in no respect superior to the calcined magnesia of the Chemical Hall, 170. Piccadilly.

A solution of the carbonate of magnesia in water has lately been recommended for correcting acid matter in the stomach; and having no taste, it is readily taken by children. It may be made by means of Nooth's apparatus, as directed under the head of Salt of Wormwood, in the proportion of half an ounce of common magnesia to two quarts of water.

The new name for magnesia *not* calcined is "*Sub-carbonate of Magnesia*" (*Sub-carbonas Magnesiæ*), and that of the calcined "*Magnesia*."

No. 2. EPSOM SALT.

This salt operates more effectually and pleasantly on the bowels than any of the neutral salts, rarely occasioning griping pains or sickness. Six drachms of this salt are equal to an ounce of the Rochelle. It may be taken, dissolved either in whey or common water —

with the former, in the proportion of half an ounce to a quarter of a pint, it is not an unpleasant draught.

In the dose of one drachm once or twice a-day, it is a very excellent alterative medicine, in inflammatory eruptions of the skin, irritative piles, and constitutional costiveness; and, dissolved in water, in the proportion of an ounce or six drachms to a quart, forms a purgative water not inferior to that obtained from many native springs. The solution of an ounce of the Epsom salt in a quart of pure soft water, in the quantity of a tea-cupful, every or every other morning, is a good remedy for cutaneous eruptions and leprous affections of the skin, commonly termed *land-scurvy*, and for piles, habitual costiveness, indigestion, flatulency, and many constitutional and local affections, and frequently succeeds after mercurial and other alteratives have failed. By the addition of two or three grains of salt of steel to the above solution, a *chalybeate aperient water* is formed, which has proved highly serviceable in cases of green sickness, the whites, palsy, worms, indigestion, flatulency, &c.; and for the stomach complaints, affecting the lower class of people, it affords a very cheap and efficacious remedy. Should it prove too cold for the stomach, it may be rendered tepid, or a little ginger-powder may be added to it. From a wine-glass to a tea-cupful may be taken every or every other morning, according to its aperient effects on the bowels.

By dissolving half a drachm of liver of sulphur, and an ounce of tartarised kali in a quart of pure soft water, a *sulphureous aperient water* is made, not inferior to that of the sulphureous spa at Harrowgate; and, taken to the extent of a wine-glassful once or twice a-day, has proved very beneficial in chronic rheumatism, cutaneous affections, and piles.

A saline powder has been much advertised under the name of "Cheltenham Salt, or Chalybeate Aperient," which is not made from the Cheltenham water, and certainly possesses no advantage whatever over Glau-
ber's salt, and, in many respects, is inferior to the

Epsom salt. The salt made at Cheltenham by some of the proprietors of wells does not contain all the medicinal virtues of the water, in consequence of the salts it contains being allowed to crystallize separately. Indeed, the article sold under the name of the "True Cheltenham Salt, or Chalybeate Aperient," is nothing more than common Glauber's salt. When the evaporation of the water is continued to dryness, and a small quantity of sulphuric acid added to render the iron soluble in water, the salt contains all the medicinal virtues of the water; and the solution of the Cheltenham salt sold at the Medical Hall, 170. Piccadilly, being thus prepared, will be found, on chemical examination, similar to the water of the spa.

The demand for the Epsom salt having greatly increased within the last seven years, wholesale dealers in the article have been induced to adulterate it with the common culinary salt and Glauber's salt. The true Epsom salt may be distinguished by becoming more dry on exposure to the atmosphere, while the adulterated is rendered more moist by it.

Many fatal accidents have lately occurred, in consequence of the oxalic acid having been taken by mistake for Epsom salt, in consequence of the great similarity of the crystals. They may be easily distinguished by the taste, the oxalic acid being very acid, and the Epsom salt only saltish. On adding a little chalk to a solution of the oxalic acid, an effervescence will take place, whilst such addition to a solution of Epsom salt will have no effect.

The new name for the Epsom salt is *Sulphate of Magnesia* (*Sulphas Magnesiae*).

No. 3. CASTOR OIL.

The oil of the Castor seeds (*palma christi*) in the quantity of one to two large table-spoonsful, is a valuable purgative medicine in cases of spasmodic colic, habitual costiveness, and piles. It may be taken conveniently with a little peppermint-water (swallowed off,

as it floats on the top). The addition of a table-spoonful of the compound tincture of senna will render it less nauseous, and, at the same time, quicken its operation. If this mode of exhibiting it be objected to by the patient, an emulsion may be made by rubbing the castor oil with about the fourth part of the yolk of an egg, in a mortar; and, when well blended, by adding very gradually an ounce of peppermint-water, and, lastly, some sugar.

The oil expressed from the castor seeds in this country, sold under the name of cold-drawn castor oil, is less nauseous than that prepared in the East or West Indies. It may be known by its pale and transparent appearance.

Since the publication of the last edition of this work, the Croton Oil has been employed in cases of *obstinate* costiveness in the place of castor oil. The dose is from one to two drops. This article I shall more particularly notice under the head of Costiveness.

No. 4. TINCTURE OF RHUBARB.

This tincture is strongly impregnated with the virtues of Rhubarb root, and Cardamom seeds. In the quantity of half an ounce to an ounce, diluted with an equal quantity of water, it affords an excellent *warm* purgative draught for colicky or flatulent affections of the bowels. In weakness and laxity of the stomach and intestines, attended with a sluggish state of the viscera (frequent causes of indigestion and flatulence), this tincture may be advantageously taken, in conjunction with the essential salt of bark, as directed for the stomachic mixture, No. 61.; and, when accompanied with heart-burn or vomiting of acid matter, the prepared natron, No. 60., will prove an useful addition, particularly if the subject be of a gouty habit. On account of the stimulating nature of the spirit and Cardamom seeds, it should not be *indiscriminately* administered in every case of pain in the bowels, or at least in such quantity as to operate as a

purgative, but employed more as a *warm* stomachic medicine, in the quantity of two or three tea-spoonsful in a little mint-water, to which a little rhubarb or jalap powder may be added when it is necessary to empty the bowels.

No. 5. CAJEPUT LINIMENT.

This article is strong opodeldoc, with an addition of the Cajeput Oil. It is a more efficacious remedy for rheumatism, paralytic affections, sprains, bruises, chil-blains, and for dispersing indolent tumours, than opodeldoc.

In cases of bruises or other accidents, when the part is inflamed, or the surface very tender, the diluted Mindererus's Spirit, No. 10., or Lotion of Extract of Lead, No. 30., is preferable to this Liniment, as the friction employed in its application may aggravate the mischief.

No. 6. COMPOUND TINCTURE OF BARK.

This tincture (impregnated with the virtues of the Peruvian bark, snake root, and the Seville orange peel) first introduced in practice by Dr. Huxham, may be taken to the extent of a dessert-spoonful, with double the quantity of pure water, three times a day, in cases of indigestion and general languor of the system: to which the diluted vitriolic acid, No. 18., in the quantity of eight drops, may be added, if the patient be affected with flatulency or profuse perspiration; but when acidity prevails in the stomach, an addition of ten or twenty grains of the carbonate of soda, No. 60., may be substituted for the Dilute Sulphuric Acid. In cases of indigestion of long standing, the Alkaline Tincture of Fumitory is a more efficacious remedy than any preparation of the Peruvian bark.

A solution of the essential salt of bark in Sherry or Port wine, as directed, No. 24., possesses the virtues of the bark in great perfection, and, at the same time, is

exempt from the pernicious effects of the ardent spirit* with which the Compound and Simple Tinctures of Bark are made.

Before *cordial* stomachic medicines are employed, with the view to strengthen the system, it will be necessary to consider well whether the debility is the consequence of any affection of the liver, the stomach, the lungs, or any part which the *cordial* quality of the medicine would aggravate. A great objection to the Compound Tincture of Bark is the constipating effect on the bowels; this may be obviated by taking it in a solution of Epsom Salt. (See page 8.) The new name for this tincture is *Compound Tincture of Cinchona* (*Tinctura Cinchonæ Composita*).

No. 7. TINCTURE of GINGER and CAMOMILE.

This tincture, containing the aromatic virtues of the ginger root, and the essential oil and bitter quality of the camomile flower, affords a most valuable stomachic medicine; and, in cases of indigestion, flatulency, laxity of the bowels, dropsy, and complaints arising from debility of the digestive organs, it has often succeeded after the Peruvian bark had failed.

From thirty to forty drops of this tincture may be taken two or three times a-day, in half a wine-glass of water. In languid gouty habits, and obstinate cases of indigestion arising from the too free use of spirituous liquors, or old age, the dose may be increased to a tea-spoonful and upwards.

When indigestion is attended with much nausea and acidity, an emetic should precede the use of this and any other stomachic medicine; and if attended with costiveness, this tincture may be advantageously taken in the solution of Epsom salt, as recommended under the head

* Many persons, no doubt, have to date their first propensity to dram-drinking to the too frequent use of spirituous tinctures rashly prescribed for hysterical complaints, lowness of spirits, flatulency, &c. It is in cases of great languor that spirituous medicines are proper.

of Epsom Salt, No. 2.; but for nervous irritability and hypochondriacal affections, an infusion of rosemary, sage, or valerian root, is the best vehicle.

When indigestion or weakness of the system is accompanied with looseness or increased irritability of the bowels, the aromatic tincture of the rhatany root is preferable to this tincture.

No. 8. COMPOUND TINCTURE OF SENNA.

This tincture, containing the medicinal properties of senna leaves, jalap, and coriander seeds, is a very pleasant warm aperient medicine, in languid or gouty constitutions; and, in the quantity of a small wine-glassful, taken alone, or diluted with water, generally affords relief in colicky and flatulent complaints of the bowels, and often succeeds better than tincture of rhubarb, or any other warm purgative medicine.

The tincture of senna, with a small proportion of treacle, is sold under the name of *Daffy's Elixir*.

No. 9. COMPOUND SPIRIT OF LAVENDER.

This tincture, first sold under the name of Palsy Drops, is impregnated with the medicinal virtues of lavender and rosemary flowers, nutmeg, and cinnamon. It is a pleasant and efficacious cordial, and, in the dose of forty to eighty drops on a piece of sugar, or in a glass of water or wine, is deservedly much employed in cases of languor, weakness of the nerves, decay of age, lowness of spirits, and fainting fits. (See Nervous Mixture, No. 72.) In the practice of apothecaries, it is chiefly employed to cover the ill-flavour of nauseous drugs, and to colour mixtures.

No. 10. MINDERERUS'S SPIRIT.

This saline medicine (made by neutralizing distilled vinegar with ammonia), taken to the extent of half an ounce, two or three times a-day, in a glass of mint-tea,

promotes perspiration, allays fever, and abates thirst. In inflammatory fevers and acute rheumatism, or in cases where the object of practice is to quiet the system, and to increase perspiration (which after much corporeal exertion is highly beneficial), this is unquestionably a very valuable medicine, and more safe than Dover's powder, which, on failing to excite perspiration, always increases fever.

In cases where the immediate operation of a sudorific medicine is of importance, it would not be proper to trust to Mindererus's Spirit alone, but to employ it with the view of keeping up the effects of a more active medicine, as the Antimonial Febrifuge Powder, No. 37.

In acute rheumatism, twenty drops of antimonial wine, No. 16., and ten of laudanum, No. 31., may be added to the night dose of Mindererus's Spirit with advantage; or if an objection be made to laudanum, three table-spoonsful of camphorated jalap may be employed in lieu of it and the mint-tea. (See Sudorific Mixture, No. 63.)

The new name for this medicine is *Solution of Acetate of Ammonia (Liquor Ammoniae Acetatis)*.

No. 11. PAREGORIC ELIXIR.

This elixir (a solution of opium, camphor, flowers of benzoin, and oil of anniseeds in proof spirit) in the dose of a tea-spoonful in a glass of water, two or three times a-day, powerfully allays the tickling sensation in the windpipe attendant on recent cough. In spasmodic asthma, and *chronic* difficulty of breathing, taken with the oxymel of squill, it gives very considerable relief, by facilitating expectoration, and allaying irritation of the lungs. (See Asthmatic Mixture, No. 68.)

If the patient be of a full habit of body, or if the cough be attended with fever, or pain in the chest, this elixir is not a proper remedy; for, in either case, its stimulating ingredients may aggravate the affection of the lungs, and produce active inflammation, unless it should excite copious perspiration, an effect which it seldom

produces. Pleurisy and consumption of the lungs too frequently follow the injudicious exhibition of the medicines of this kind, which are advertised under the imposing names of Balsam of Horehound, Balsam of Honey, &c. &c. In coughs of a doubtful nature it will therefore always be advisable to give paregoric elixir with a medicine that will occasion a determination to the skin, as Mindererus's Spirit, or two grains of ipecacuan powder. (See Cough and Lettuce Lozenge.)

Half an ounce of this elixir contains a grain of opium.

In the last Pharmacopœia, the oil of anniseeds is omitted in the recipe for this elixir, which, in chronic cough and asthmatic difficulty of breathing, is a valuable ingredient.

The new name of this elixir is *Compound Tincture of Camphor.* (*Tinct. Camphoræ Comp.*)

No. 12. SPIRIT OF HARTSHORN.

This volatile liquor, taken from twenty to thirty drops in a glass of water, often affords immediate relief in cases of lowness of spirits, fainting, and hysterick fits. It may, likewise, in such cases, be rubbed over the temples, and applied to the nostrils. The same quantity of the compound spirit of lavender will render it more grateful to the palate and acceptable to the stomach, and, at the same time, promote its cordial effects.

Equal parts of spirit of hartshorn and olive-oil form the volatile liniment, which is much employed as an external remedy for paralytic numbness, chronic rheumatism, diseased joints, and inflammatory sore-throat; but it is not so efficacious as the Cajeput Liniment, noticed page 12.

Spirit of Hartshorn has lately been recommended by an Italian physician, in the dose of forty or fifty drops, in a glass of water, to counteract the intoxicating effect of vinous liquors.

The new name for Spirit of Hartshorn is, *Volatile Liquor of Hartshorn* (*Liquor Volatilis Cornu Cervi*).

No. 13. SPIRIT OF SAL VOLATILE.

This volatile aromatic spirit is taken in the same manner, and for the same purposes, as the spirit of harts-horn. It is more pleasant to the palate, and a more powerful stimulant than spirit of hartshorn, on account of its being impregnated with the essential oil of cloves and lemon-peel. A tea-spoonful of this spirit with the same quantity of compound spirit of lavender, taken in a tea-cupful of horse-radish and mustard-seed tea, three times a-day, has been attended with great advantage in gouty affections of the stomach, paralytic numbness of the extremities, and flatulent complaints of long standing. (See Stimulating Mixture, No. 74.)

It will likewise prove a valuable addition to the tincture of the essential salt of bark, made with Sherry or Port wine, as directed, No. 24., in debility of the stomach and nervous system. (See Nervous Mixture, No. 72.)

The new name for this spirit is *Aromatic Spirit of Ammonia (Spiritus Ammoniae Aromaticus)*.

No. 14. VITRIOLIC AETHER.

This ethereal spirit, in the quantity of a tea-spoonful in a glass of peppermint or pure water, often affords immediate relief in spasmodic colic, cramp of the stomach, and asthmatic, hysterical, and fainting fits. A small dessert-spoonful in a wine-glass of camphorated mixture, Dr. Lind and other practitioners assert to be an admirable remedy when the gout attacks the stomach. It often gives ease in the most violent head-ache, on being applied externally to the part, and relieves the tooth-ache when laid on the afflicted tooth and jaw by means of lint.

The *external* use of this remedy is capable of producing two very *opposite* effects, according to the *mode* of application; for, if its evaporation be prevented by covering the place to which it is applied with the hand, it will so powerfully stimulate the skin, as to excite a sen-

sation of heat and great redness: on the contrary, if the part of the body to which it is applied be *exposed* to the air, its rapid evaporation will produce an intense degree of cold, and, in this manner, it has proved more beneficial in *acute* pains, particularly when attended with increased heat.

Æther should be always taken in a *cold* vehicle, and swallowed as quickly as possible; and the bottle should be well corked, and kept in a cold place, inverted in water to prevent its escape. (See Antispasmodic Mixture, No. 70.)

The once celebrated anodyne liquor of Hoffman, and Clutton's febrifuge spirit, are weak aethers.

Good æther should not redden the colour of litmus, nor produce a precipitation with a solution of barytes.

The new name of Æther is *Sulphuric Æther* (*Æther Sulphuricus*).

No. 15. SWEET SPIRIT OF NITRE.

This preparation of nitre, in the dose of twenty to thirty drops in a little water, allays fever, quenches thirst, promotes the secretion of urine, moderately strengthens the stomach, and resists putrefaction; hence it becomes a valuable medicine in the first stage of low nervous fevers. It may be given with a small dessert-spoonful of Mindererus's spirit, No. 10., every three or four hours. Being also a cordial, it is not a proper medicine in acute inflammatory fevers, or fevers arising from accidents, or attendant on local inflammation. It is also an useful remedy for suppression of urine, and for gravel, in which cases it may be administered from thirty to forty drops, three times a day, in either the almond emulsion, decoction of marshmallow-root, or linseed tea. A tea-spoonful of a mixture of equal parts of sweet spirit of nitre and spirit of sal volatile, taken twice a day in two table-spoonsful of water, or, if the patient be much debilitated, in the decoction of rhatany root (see Rhatany-root), will increase the secretion of urine in dropsical complaints, and at the same time strengthen the constitution.

Sweet spirit of nitre, when properly made, will not effervesce with an alkali, or give a blue colour to tincture of guaiac gum. By age, or exposure to the air, it is so far decomposed as to possess very opposite properties ; it should therefore be kept in the same manner as directed for aether.

The new name for Sweet Spirit of Nitre is *Spirit. of Nitric Æther (Spiritus Ætheris Nitrici)*.

No. 16. ANTIMONIAL WINE.

In inflammatory affections of the chest, and recent cough from obstructed perspiration, this vinous solution of emetic tartar administered in a mucilaginous vehicle (see Cough Mixture, No. 66.), relieves respiration, promotes expectoration, and abates fever, by producing a determination to the skin, and quieting the circulation.

For the purpose of exciting full vomiting, it is not so efficacious as the emetic tartar or ipecacuan powder.

In sciatica and inflammatory rheumatism, antimonial wine, in the dose of thirty drops, with fifteen of laudanum, No. 31., in a glass of mint-water, taken every night at bed-time, was a very favourite remedy with the late Dr. Fothergill, and we have found it to deserve the high commendation given it by that esteemed author.

Like all other antimonial preparations, it must be regarded as an active remedy, and should not be *indiscriminately* prescribed in *all* fevers ; for although it has, under proper management, been productive of much good, in fevers *strictly inflammatory*, it has, on the other hand, frequently done irreparable mischief, from being administered in low nervous fevers, and *putrid* ulcerated sore throats, by occasioning such great evacuations as to hurry the patients to their graves in a short time. In domestic medicine it should not, therefore, be employed in fevers of an *ambiguous* nature, without the sanction of an experienced practitioner. In fevers of a doubtful nature, it will be more advisable to employ ipecacuan powder, which will produce the same

salutary effects, without reducing the strength of the patient; and for the purpose of exciting and keeping up perspiration, and allaying fever. Mindererus's spirit, and camphorated julep, will answer as well as the antimonial preparations in exciting perspiration, and may be employed with safety and effect in those autumnal inflammatory fevers, which frequently, and often suddenly, exhibit symptoms of great debility.

In obstinate eruptions of the skin, tartarised antimony wine, in small doses of eight or ten drops three times a day, in a tea-cupful of the decoction of the dried marshmallow-root*, is a good alterative medicine, and often succeeds in obstinate leprous affections or scorbutic eruptions, after other alterative medicines have proved ineffectual.

No. 17. TINCTURE OF MYRRH.

This solution of gum myrrh in proof spirit is chiefly employed as a lotion for the teeth and gums; and in those constitutional caries, or decay of the teeth, which commence with black specks, or superficial holes in the enamel, it may check their progress, but it can have little or no effect in removing tartareous incrustations. When the gums are spongy or tender, this tincture, from its stimulating quality, is very improper. In such cases an astringent application, as the simple tincture of rhatany-root, by constringing the vessels, will prove very beneficial. (See Levigated Charcoal, and Tooth-ache.)

Myrrh is esteemed as a *warm* strengthener of the stomach and bowels, and as such has proved serviceable in languid cases, and particularly those female disorders that proceed from languor or debility of the system. A tea-spoonful of the tincture may be taken twice a day, in a glass of cold camomile tea, or, as recommended by

* This decoction is made by boiling two ounces of the dried root in a pint and a half of water, till reduced to a pint. The foreign root is the best.

Dr. Lind, with half a drachm of Peruvian bark powder, in a glass of peppermint water. But the best method of administering myrrh in cases of green-sickness, is in the form of pills, combined with steel, gentian, and aloes, as the ephratic pill of the Edinburgh Pharmacopœia, ten grains of which, divided into two pills, may be taken twice a day. (See Green Sickness.)

Both tincture of myrrh, and the compound tincture of benzoin, commonly called Friar's Balsam, are improper applications for recent cuts; the stimulating gums of which they are made exciting a degree of inflammation, which prevents the union of the sides of the wound, and thus occasions ulceration. (See Cuts and Bruises.)

In cases of *putrid* sore-throat and the thrush, tincture of myrrh, with the dilute vitriolic acid, and an infusion of roses, form an excellent detergent gargle. (See Detergent Gargle, No. 95.)

No. 18. DILUTE SULPHURIC ACID.

This medicine, in the dose of six to ten drops twice a day, in a wine-glass of water or ginger and camomile tea, is a valuable medicine in weakness and relaxation of the stomach, and decay of constitution, particularly when occasioned by the abuse of spirituous liquors, and will often succeed after the Peruvian bark and other tonic medicines have been exhibited without effect. It is likewise an excellent remedy for restraining the profuse nocturnal perspirations attendant on hectic fever, and relaxed habits.

In cases of indigestion arising from nervous excitement, and attended with a sense of thirst, or a feverish state of the system, the dilute sulphuric acid has proved more beneficial, than bitter or astringent medicines. It has also been much extolled as a remedy for vomiting, but in such cases the carbonate of potass generally answers best. (See Salt of Wormwood.)

For redundancy of bile in the stomach or intestines,

this medicine will chemically prove more serviceable than calomel, or the drastic purges commonly employed for its evacuation, and will, at the same time, tend to remove the cause, by allaying morbid excitement of the stomach, which the frequent use of strong purgative medicines will sometimes increase. (See Biliary Affections.)

The dilute sulphuric acid with an infusion of rose leaves, makes an excellent gargle for inflammation of the throat, and relaxation of the soft palate. (See Acidulated Gargle, No. 93.)

This acid has the property of covering in a considerable degree the bitter taste of the Peruvian bark and other drugs. The quantity of fifteen drops to a pint of the solution of Epsom salt, recommended No. 2., renders it more agreeable to the palate, and more efficacious as an alterative medicine in diseases of the skin.

It does not differ in its medicinal virtues or strength from the *acid elixir of vitriol*.

The old name for the dilute sulphuric was, *Dilute Vitriolic Acid*.

No. 19. TINCTURE OF ASAFOETIDA.

This strong solution of asafoetida gum in proof spirit, in the quantity of thirty to fifty drops, in a glass of pennyroyal or peppermint water, is much and successfully employed as a remedy for lowness of spirits, hysterical (see Antihysteric Mixture, No. 65.) and fainting fits; different nervous complaints, spasmodyc colic (see Antispasmodic Mixture, No. 70.), and asthma (see Asthmatic Mixture, No. 68.) The addition of ten drops of sal volatile to each dose will render it more pleasant to the palate, and at the same time coincide with its virtues.

A mixture of one-third of tincture of asafoetida, and two of paregoric elixir, taken in the dose of a tea-spoonful, has been found particularly serviceable in relieving asthma in languid constitutions, and chronic difficulty of breathing, by expelling air from the stomach,

promoting expectoration, and allaying irritation (see *Asthma*.) In the hooping-cough, unattended with fever, it will prove equally beneficial, in doses proportioned to the age of the patient, viz., to a child of two years old, six drops, increasing two drops for every year.

No. 20. VOLATILE TINCT. OF GUAIAC GUM.

This solution of the guaiac gum in the compound spirit of ammonia, in the quantity of one to two tea-spoonsful, is a popular, and very efficacious remedy for *chronic* rheumatism, gout of the stomach, and partial paralytic numbnesses. It may be taken with the camphorated julep, in the proportion recommended for the anti-rheumatic mixture (No. 71.), or in case of being attended with debility of the system, with the bark mixture (see No. 24.) The part affected with rheumatism or palsy should also be well rubbed with volatile liniment, or stimulated with electric sparks, and kept warm by means of flannel. When rheumatism is attended with fever, this tincture, in consequence of its stimulating quality, is not proper; and if it should not in such case promote perspiration, it will aggravate the complaint, by increasing the feverish state of the system.

The last new name for this tincture is *Ammoniated Tincture of Guaiac Gum (Tinc. Guaiac. Ammon.)*.

No. 21. SALT OF WORMWOOD.

This alkaline salt is chiefly used for making the saline mixture with the juice of the lemon. (See No. 78.) It is sometimes prescribed alone, in doses of six or ten grains, dissolved in mint-water, for correcting acidity in the stomach, and for increasing the secretion of urine. It is the basis of the alkaline mephitic water, which is made by dissolving two ounces and a half in five quarts of distilled water, and afterwards saturating it with fixed air, by Nooth's or Parker's apparatus. This water, to the extent of half a pint two or three times a day, has

proved highly beneficial in the stone and gravel. If this quantity should prove too cold, or produce unpleasant distention of the stomach, two tea-spoonfuls of gin, or a little brandy, may be taken with it: or if it should nauseate the stomach, a tea-spoonful of paregoric elixir may be taken with it, or a quarter of an hour before it. The aërated soda-water, being pleasanter to the palate, and in calculous complaints probably more efficacious, is more generally employed. (See Carbonate of Soda; No. 60.)

A solution of salt of wormwood in peppermint-water, in the proportion of two drachms of the former to two ounces of the latter, is much recommended by Dr. Rosentein as a remedy for rickets, in the dose of twenty or twenty-five drops, twice a day, to a child of four years old to eight, in a little milk or whey. In the same manner it has been found beneficial in convulsive fits of infants, as appears by several late communications by practitioners of celebrity in the *Monthly Gazette of Health*. Its salutary effects in the complaints of children no doubt are produced by neutralising acid matter. In rickets, lime is a more valuable remedy, as it not only corrects acidity, but strengthens the organs of digestion. (See Rickets and Lime-water.)

Salt of wormwood is rendered more pleasant to the palate, and in many respects improved as a medicine, by being saturated with fixed air. This preparation, termed carbonate of potass, is preferred for making the saline draughts, when they are directed to be taken in a state of effervescence, and for making the mephitic alkaline water. It has also been found to succeed in the quantity of five grains, dissolved in an ounce of peppermint, taken every two hours, in allaying vomiting, after other medicines had failed.

Salt of wormwood is a powerful agent in counteracting the fatal effects of mineral salts taken into the stomach. (See Treatment of Mineral Poisons.)

The alkaline salt procured from wormwood, differing in no respect from that of other vegetables, the term salt of wormwood is no longer employed by professional

men. The last new name is *Subcarbonate of Potash* (*Potassæ Subcarbonas*) ; and for the salt, saturated with fixed air, *Carbonate of Potash* (*Potassæ Carbonas*).

No. 22. CRYSTALLISED LEMON ACID.

This preparation affords a good substitute for the juice of the lemon when it cannot be obtained, which often happens during a long voyage. A drachm of this acid is equivalent to an ounce and a half of the expressed juice. Equal quantities of the crystallised lemon acid and salt of wormwood, about a drachm of each, dissolved in half a pint of water, with six drops of essence of peppermint, and a little sugar, readily make the saline mixture, so much employed in inflammatory fevers. When the skin is parched with great febrile heat, this mixture generally operates as a gentle sudorific, cools the body, allays thirst, increases the secretion of urine, and operates slightly on the bowels ; but to produce these effects, it should be taken in a much greater quantity than is usually prescribed : indeed, it is better calculated as a common beverage than a medicine ; for such is its weakness, that unless it be taken to the extent of nearly a quart in the space of twenty-four hours, it cannot be expected to produce any salutary effect of consequence. The saline mixture, both in putrid and inflammatory fevers, succeeds better when given in the act of effervescence, which is done by dissolving a scruple of salt of wormwood in an ounce of mint-water, and mixing with it, at the moment of taking, a table-spoonful of lemon-juice, sweetened with sugar, or a scruple of the crystallised lemon acid previously dissolved in an ounce of common water ; the effervescence with lemon-juice, being more gradual, answers in this case much better than the salt, the fixed air in the latter being disengaged too suddenly for a sufficient portion to be swallowed, through being deprived of its mucilage in the process of crystallisation ; but when the recent juice cannot be readily procured, this inconvenience may be obviated, by dissolving in

the acid a little white sugar ; or the effervescence may be produced in the stomach, by first taking the solution of the salt, and immediately afterwards the lemon-juice, or solution of the crystallised acid, in the above proportions ; in either way, a much less quantity is necessary than of the saline mixture. The effervescence with the salt of wormwood, saturated with fixed air (termed carbonate of potash), being considerably greater than with common salt of wormwood, it should, in all cases of fever, be preferred.

The saline draught, in a state of effervescence, is a good preventive medicine against the infection of contagious fevers, and may be employed as an auxiliary to the nitrous fumigation. (See the Means of destroying Contagious Effluvia.)

The last new name for this preparation of lemon-juice, is *Citric Acid (Acidum Citricum)*.

No. 23. IPECACUAN POWDER.

This powder is a very safe, and in general an efficacious emetic, and possesses the advantage of operating as an aperient medicine, without distressing the patient, when it fails properly to excite vomiting. It is, therefore, deservedly employed in almost every disease, in which full vomiting is required. It is given from one scruple to twenty-five grains, mixed with a little water, or with the emetic tartar, in the proportion of the emetic powder, No. 88.

In the small dose of one or three grains, ipecacuan powder furnishes an useful, active, and, at the same time, innocent sweating medicine * (see Sudorific Mix-

* The celebrated sweating powder of Dr. Dover is composed of one part of ipecacuan powder, one of opium powder, and eight of vitriolated kali, commonly called sal polychrest. From ten to twenty grains may be taken in any convenient vehicle in rheumatic affections. The patient should lie between the blankets or in a flannel shirt, and take, as soon as he begins to perspire, some warm liquid, in small portions, frequently ; such as thin gruel, bohea-tea, or weak white-wine whey.

ture, No. 63.), and proves highly serviceable, combined with a quarter of a grain of opium, or five drops of laudanum, every two or three hours, in dysentery, obstinate purgings, asthma, and hooping-cough. The emetic dose of twenty-five grains, with a tea-spoonful of tincture of asafoetida, taken in a little peppermint-water at bed-time, has proved very beneficial in shortening, and sometimes preventing, the paroxysm of spasmodic asthma.

Ipecacuan powder, in the quantity of two grains twice a day in a little peppermint-water, has been found very efficacious in spitting of blood and excessive flooding, by Dr. Stoll, of Vienna; and ample experience in this country has proved it to be a safe and efficacious remedy in these cases; for when it has provoked vomiting, the complaints have rather been relieved than aggravated by it. In the smaller dose of one or two grains every four hours, it produces a considerable determination to the skin, and promotes expectoration: hence it is a most valuable medicine in pleurisy, inflammatory affections of the lungs, recent coughs from obstructed perspiration, and the first stages of pulmonary consumption. (See Cough Mixture, No. 66.) It has lately been much recommended in the small dose of one or two grains every morning, by a French physician, and by Dr. Buchan, in cases of the indigestion of elderly people, attended with an accumulation of phlegm in the gullet or windpipe. In debilitated elderly subjects, life so much depends on the stomach performing its office, that the small dose of one grain of ipecacuan, by disordering the stomach, has occasioned death. When the stamina are good, by occasioning the internal membrane of the gullet and stomach to throw off the accumulated slime, it has proved very beneficial.

Ipecacuan has the property of diminishing the soporific effects of opium and other vegetable poisons, and hence it is recommended as a powerful auxiliary to the emetic tartar (see Emetic Powder, No. 88.), for the purpose of exciting vomiting when too great a quantity of a vegetable poison has been taken into the stomach. (See Treatment of Poisons.)

No. 24. ESSENTIAL SALT OF BARK.

This preparation contains, in a concentrated state, the volatile and active properties of the Peruvian bark, in a high degree of perfection, and answers every purpose of the powder, without producing nausea, vomiting, or purging, which are frequently excited by the powder, and sometimes by the decoction of bark.

Ten grains of this preparation are equal to a drachm of the bark in substance. It is much more pleasant to the palate and stomach, and may, with equal advantage, be employed where the use of a strengthening medicine is indicated. In intermittent and remittent fevers, ten grains may be taken every two hours, either in the form of pills, or dissolved in an ounce of camphorated julep, as recommended for the camphorated bark mixture, No. 67; but for low fevers, putrid sore-throat, and mortifications, red Port wine is a better vehicle; with which, in the proportion of three drachms to a quart, it makes an elegant tincture, possessing all the active properties of the Peruvian bark, and at the same time free from the pernicious effects of the ardent spirit of wine, with which the simple and compound tinctures are made.

This valuable preparation of the Peruvian bark was first made in France, by the Count de Garraye, and prescribed in this country by Dr. James Carmichael Smyth, who, from repeated trials, now gives it a decided preference. Apothecaries in the country, unacquainted with the preparation, and some, perhaps, from sordid motives, have, in compounding prescriptions, substituted for it the common extract, which is a different article, and does not contain the resinous and volatile parts of the bark.

The sulphate of Quinine has been lately introduced into the practice of medicine by some French chemists and physicians, as a remedy for tic douloureux, ague, and general debility; being free from astringency, it is less efficacious than the ~~essential~~ salt of bark.

No. 25. SALT OF STEEL.

This preparation of iron has been long held in high estimation as a great strengthener of the stomach and bowels, and at the same time, by increasing the red globules of the blood, affords a valuable remedy in dropsical complaints, green sickness, and other diseases of debility, attended with poverty of blood.

From its poisonous effects on white-blooded animals, it proves a very powerful and safe vermifuge, taken in the dose of five grains (dissolved in a glass of water), when the stomach is most empty.

Iron is recommended by Mr. Carmichael, an eminent surgeon in Dublin, as a remedy for cancer. This ingenious author, supposing that iron is held in solution in the blood by the *phosphoric* acid, recommends the saline preparations to be made with this acid, in order that it may sooner, and in greater quantity, enter the circulation. The preparations he has found most successful, are—the oxyphosphate, the sub-oxyphosphate, and phosphate of iron. (See Cancer.)

The salt of steel readily dissolves in water, and, in the proportion of a grain to a pint, affords a good substitute for the native chalybeate waters. (See Epsom Salt, No. 2.) Thirty grains dissolved in a quart of sherry wine, make a very excellent chalybeate wine, of which a small wine-glassful may be taken two or three times a day.

In cases of green-sickness and irregularity of the menstrual evacuation, it has been found to answer best when combined with aloes, a form for which is given among the remedies recommended for green-sickness.

In cases of dropsy, whites, and gleet, the extract of rhatany-root will prove a very powerful auxiliary in the following proportions :

Take of salt of steel, ten grains; extract of rhatany-root, one drachm; socotrine aloes, twenty grains; oil of caraway seeds, ten drops; with simple syrup, make into twenty pills, two to be taken twice a day, with a wine-glassful of the infusion of buck. leaves.

When the countenance is florid, and the patient of a plethoric habit, steel is improper even in cases of suppression or retention of the menses.

The last new name for Salt of Steel is *Sulphate of Iron (Ferri Sulphas)*.

No. 26. RHUBARB POWDER.

Rhubarb has long been held in high estimation as a mild and efficacious aperient medicine; and, on account of its operating with less violence or irritation than any other aperient medicine, is generally employed with pregnant women and children. Besides its purgative quality, it is celebrated for an astringency, which strengthens the tone of the stomach and intestines, and hence proves useful in disorders arising from laxity of the fibres, or sluggish state of the bowels. The purgative dose is from one to two scruples, in a little peppermint-water, to which ten grains of calcined magnesia may be added, when acidity prevails in the stomach.

A powder composed of six parts of rhubarb, one of calomel, and a little ginger powder, is an efficacious remedy for worms, in people whose bowels are weak and irritable. For the purpose of suspending the calomel, it should be taken in a thick vehicle, as honey or jelly, or made into pills with a little syrup.

In complaints of the stomach, which are generally termed bilious, arising from inactivity of the liver; rhubarb does not operate so efficaciously as the Bengal antibilious pills, which not only act on the stomach and intestines, but remove the cause existing in the liver. (See Antibilious Pills, No. 46.)

A mixture of fifteen grains of rhubarb, a scruple of calcined magnesia, a drachm of white syrup of poppies, two drachms of compound tincture of cardamon seeds, and two ounces of dill-water, in the dose of a tea-spoonful, will prove very beneficial in removing many disorders to which children are subject from redundancy of acidity in the stomach and intestines, and is more

safe and efficacious than the advertised carminatives, which, by occasioning costiveness, not unfrequently produce considerable mischief. (See Absorbent Mixture, 73.)

Rhubarb is not only rendered more aperient by a small addition of sal polychrest, but its secondary constipating effects are in some degree obviated by it. Dr. Hugh Smyth and Dr. Warren were very partial to this latter combination, as a stomachic medicine, in the small dose of five grains of rhubarb, and six grains of sal polychrest, in peppermint-water, about twice a day. In larger doses it is very apt to occasion griping pains.

In diseases attended with extreme debility of the system, where it is necessary to relieve the bowels, rhubarb, on account of possessing a tonic power, may be beneficially administered when no other medicine can be with safety employed.

The Russian rhubarb sold under the name of Turkey rhubarb is evidently very superior to that imported from the East Indies, both as an aperient and a stomachic.

No. 27. JALAP POWDER.

In the dose of twenty to twenty-five grains, with two of ginger—or twenty grains mixed with two drachms of compound tincture of senna, and an ounce of mint-water—is a very pleasant, safe, and effectual purgative medicine; and generally performs its office without occasioning nausea or much griping. In cases of dropsy of the extremities or belly, four grains of calomel, to fifteen or twenty grains of jalap, with two or three drops of essence of peppermint, will prove very beneficial both as a purgative and diuretic. For these complaints, this medicine should be repeated three times a week, and the tonic mixture, No. 77. taken in the intermediate times.

For delicate constitutions, half the dose of jalap powder, and as much powder of rhubarb, with three drops of essence of mint, are preferable to jalap alone.

The operation of jalap and rhubarb may be promoted

by taking after them a weak solution of the Epsom or Cheltenham salt. (See No. 2., fol. 3.)

It is a curious fact, that in hypochondriacal patients, jalap manifests little or no effect as an aperient, but occasions severe griping ; and, on the bowels of quadrupeds, it is said to produce no sensible effect whatever.

No. 28. CAMPHORATED POWDER.

This powder, composed of camphor, sugar, and gum-arabic, affords a very convenient form for making the camphorated julep, for which camphor is chiefly, if not solely employed in domestic practice. This julep is made in the following manner : Rub one drachm of the camphorated powder in a mortar, and add to it, by degrees, one pint of warm (not boiling) water, and then strain the liquor through fine linen.

A mixture of six ounces of this julep, and two ounces of Mindererus's spirit, taken in the dose of three table-spoonsful every three or four hours, is a safe and good sudorific medicine in inflammatory and febrile affections. In fevers, strictly inflammatory, it may be given with the Antimonial Wine, No. 16. In putrid fever, malignant sore-throat, and mortifications, it affords a very excellent vehicle for the exhibition of Peruvian bark. (See Essential Salt of Bark, No. 24. and Mixture, No. 67.) In strangury, three table-spoonsful of a mixture of camphorated julep, half a drachm of purified nitre, and two drachms of gum-arabic, repeated every three hours, will prove of great service.

In *chronic rheumatism*, and *paralytic affections*, camphor, combined with the guaiac gum, affords an excellent remedy in the proportion recommended for the Anti-rheumatic Mixture, No. 71.

In cases of increased irritability of the nervous system, a mixture of camphor, castor, sp. sal volatile, &c. may be taken with great advantage. (See Nervous Mixture, No. 72.)

In cases of hooping-cough, chronic difficulty of

breathing, and asthma, a mixture of camphorated julep with oxymel of colchicum seeds, and æther (as advised for the Asthmatic Mixture, No. 68.), was much recommended by the celebrated Dr. Hartmann, and is certainly a valuable composition for these complaints.

It is worthy of remark, that in *acute* fever, attended either with a determination of blood to the head or lungs, camphor is a very doubtful remedy, and when it fails in those cases to excite perspiration, it generally increases the fever. In this fever it also often disturbs the brain and nervous system.

In maniacal cases, and the delirium attendant on *low* fever, camphorated julep, in the dose of three table-spoonsful, has often succeeded in procuring sleep after laudanum had failed: in the same manner, repeated every four hours, it proves serviceable in *eruptive* fevers, and frequently produces the return of the eruption of small-pox and measles after recession.

The odour of camphor is by some esteemed an efficacious preventive against contagious fevers; but in this respect it is very inferior to the camphorated acetic acid.

No. 29. COMPOUND CRETACEOUS POWDER.

This powder, composed of prepared chalk, cinnamon, and gum arabic, is a very useful medicine for correcting acidity, attended with looseness, and has been found particularly serviceable in diarrhoea arising from acidity or irritability of the bowels. Twenty grains may be taken in a glass of water, with three drops of the essence of cinnamon; or with laudanum, as the Cretaceous Mixture, No. 64.

When looseness is evidently the consequence of acrid humours in the stomach and intestines, fifteen grains of rhubarb and two of calomel should precede the use of this medicine.

When purging occurs spontaneously in fever, it should never be suddenly checked. Even in *low* putrid fever, it is often of a critical nature, and highly

beneficial to the patient. In such cases its effects must be attentively watched, and no astringent medicine of this kind administered, unless clearly indicated by the reduced state of the patient. (See *Diarrhoea*.)

This cretaceous powder, for correcting acidity in the stomach, answers as well as magnesia: it, however, differs essentially in its effect on the bowels after uniting with an acid; the magnesia acting as a purge, while the cretaceous powder produces costiveness: hence when acidity is attended with costiveness, magnesia should be preferred, and when with a contrary state of the bowels, the cretaceous mixture. In some cases they may be advantageously combined (see *Magnesia*). The cretaceous powder is very similar to the Gascoign ball, the salutary effects of which depend on its absorbent property. When purging is not excessive, or the object of practice is to moderate, and not to restrain it entirely, lime-water is preferable to this powder. (See *Lime-water*.)

No. 30. EXTRACT OF LEAD.

This solution of lead in vinegar makes a good discutient cooling lotion, in the proportion of ten drops to half a pint of pure water, with half a drachm of laudanum, for inflammation of the eyes; but for bruises, slight burns, scalds, excoriations, and inflammation on the surface of the body, treble the quantity of the extract may be employed, and an ounce of rectified spirit of wine, or three ounces of white-wine vinegar, substituted for the laudanum.

This extract is *solely* used externally; and as colicky and paralytic affections have been known to arise from a portion of the lead being taken up into the system, by the absorbent vessels of the skin, when the inflammation or injury was *extensive*, it will be advisable in such cases to substitute a lotion, composed of four ounces of white-wine vinegar, an ounce of rectified spirit of wine, and six of water. This will generally answer all the good purposes of the extract of lead, without producing

any of its ill effects, and therefore, in *domestic* practice, should be preferred. The good effects of lotions, no doubt, in a great measure, arise from their being applied *cold*; and as lead certainly diminishes arterial action, a slight impregnation of it must, in cases of active inflammation, prove highly beneficial. When there is a tendency to gangrene, on the same principle, it is very improper.

The late Sir George Baker published twelve cases of infants, who died at Dartmouth of convulsions, occasioned by the application of an ointment of Goulard's extract, to the nipples of their nurses. This ointment, under a plausible name, was sold by a woman famous for her skill in the treatment of sore nipples: and it is to be feared those accidents frequently occur from the use of the advertised nipple ointments, the basis of which I have ascertained to be lead.* For the means of counteracting the effects of lead taken into the stomach, see Treatment of Mineral Poisons.

The last new name for extract of lead is *Liquor of Acetate of Lead (Liquor Plumbi Acetatis)*.

No. 31. LIQUID LAUDANUM.

Of this solution of opium, in proof spirit, from twelve to thirty drops may be taken in any convenient vehicle. The dose may be increased or diminished in proportion

* An infant having died rather suddenly of convulsions, and understanding the mother had applied an ointment, recommended by a friend, to her nipples, I was induced to examine the remedy. The person who recommended its use declared it was *perfectly innocent*; that it did not contain a particle of lead; but that it was made of lytharge of gold, vinegar, and spermaceti ointment. Lytharge of gold is a preparation of lead, and, combined with vinegar, forms a powerful poison, which, I have no doubt, proved fatal to the infant. The dusting of children with white lead generally termed *ceruse powder*, is also a dangerous practice, and is, no doubt, often the cause of convulsive fits and spasms in the bowels.

to the *degree* of pain and *intervals* of repetition. When judiciously administered, this is the most valuable medicine we possess ; and in certain stages, and with certain combinations, is, more or less employed in almost every disease incident to the human frame. It has the power of mitigating pain, inducing sleep, allaying inordinate action, and diminishing morbid irritability ; hence it becomes an invaluable remedy in obviating symptomatic fever attendant on fractures and other accidents. In spasmodic colic, it will often prevent inflammation of the bowels ; and in all spasmodic affections, it is more or less employed. In incurable and painful diseases, as cancer, diseased joints, &c. it alleviates the sufferings of the patient so as to render life tolerable.

If the quantity of eight or ten drops (which in domestic medicine on commencing its use should not be exceeded) do not answer, it may be repeated and increased till the desired effect is obtained ; and in this manner the dose may, in general, be pushed with safety to a very great length ; but this advice should only be followed in cases of *accidents* and *chronic* diseases, where there is considerable *local* irritation to overcome. When it disagrees in the ordinary quantity, it may often be given with much advantage in doses of five drops every hour till the desired effect be produced. When the exhibition of laudanum is deemed necessary by way of lamento, in cases of obstinate purging, pain in the bladder or womb, spasms in the bowels, &c. treble the quantity to that given by the mouth should be administered.

In violent purgings and fever, occasioned by difficult dentition, laudanum, in the dose of one or two drops about twice a day, will prove very serviceable, by allaying the irritability of the system ; and as children are more or less affected at such times with acidity in the stomach, it will be proper to give it with magnesia, as the Absorbent Mixture, No. 73 ; but if the bowels are disturbed, lime-water, in the quantity of a dessert-spoonful, will answer best ; on the contrary, if the child be of a costive habit, or be disposed to rickets,

enlarged bowels, &c. the body should be kept open by the occasional exhibition of rhubarb power with calomel, as recommended under the head of Rhubarb Powder, No. 26.

To exhibit laudanum with effect, we should ascertain whether the irritation is attended with a diminished or increased vitality.—If the vital powers run too high, as in acute fever, or local inflammation, the dose of forty or fifty drops will have little or no effect in producing sleep or allaying pain; but if the system be in a relaxed or debilitated state, twelve drops will probably produce the desired effect. Thus, in the commencement of pleurisy, thirty drops of laudanum will not even allay cough; but when the system is reduced by bleeding or purging, six or eight drops will succeed in quieting cough, and procuring rest. Hence, in the use of opium or laudanum, it is of great importance to ascertain whether it be super-irritation or sub-irritation we have to subdue.

To counteract the soporific effects of too large a dose of laudanum, coffee has been much recommended as a diluter, and ipecacuan powder as an emetic; and when the quantity taken is so great as to render vomiting necessary, the ipecacuan should be administered to the extent of two scruples, with half an ounce of tartarised antimony wine, and a tea-spoonful of the flour of mustard. The vegetable acids are likewise much recommended as powerful correctors of its narcotic effect, and will prove a useful auxiliary to the emetic. Lemon juice and vinegar, for this purpose, are equally efficacious, in the quantity of half a wine-glassful. (See the Treatment of Vegetable Poisons.)

As laudanum is apt to produce costiveness, the state of the bowels should always be attended to during its exhibition. To counteract this effect, the Epsom Salt, No. 2, or Laxative Lavement, No. 97, is the most efficacious. In asthma, particularly in elderly or debilitated subjects, laudanum, in full doses, is a dangerous remedy, and, by weakening the respiratory muscles, and power of expectoration, has destroyed life.

For rheumatic inflammation of the eyes, two drops of laudanum, dropped within the eyelids twice a day, will often succeed in dispersing the inflammation much sooner than the saturine lotions. Some practitioners prefer a watery solution of opium for this purpose : but the small quantity of spirit in the laudanum is more serviceable than otherwise. The watery solution is, however, less painful.

It appears by a communication in the *Gazette of Health*, that the extract of henbane in the dose of four grains, not only counteracts the constipating property of laudanum, but effectually prevents its unpleasant effects on the brain.

Many attempts have been made to account for the effect of opium, applied to the stomach in allaying pain in the extremities. The primary moving power of the body resides in the brain, and the functions of this organ are, in a great degree, kept up by a sympathetic re-action of different parts of the body. The sympathy between the stomach and brain is by far the greatest ; and, consequently, whatever tends to diminish it, will lessen that between the brain and other parts ; hence laudanum, by reducing the excitement of the stomach, and consequently its power of re-action, allays pain in a remote part of the body.

Mr. Battley has lately discovered in opium the component part in which the peculiar anodyne property resides. This part, when separated, he asserts, procures sleep and allays pain without disordering the head or stomach, or constipating the bowels. To this preparation he has given the name of *Sedative Liquor of Opium*. It is much cheaper and more efficacious than the article sold under the title of “*Black Drop*.”

The new name of laudanum is *Tincture of Opium* (*Tinctura Opii*).

No. 32. ESSENCE OF PEPPERMINT.

This preparation (made by dissolving the oil of peppermint in rectified spirit of wine) readily mixes with

water, and, in the proportion of thirty drops to a pint, makes a pleasanter and better simple water than that distilled from the herb; which, in consequence of not retaining its flavour in perfection many weeks, is seldom to be procured good. The spirituous peppermint-water may be made by employing brandy in lieu of water, which will prove less pernicious to the organs of digestion, than that sold under the name of peppermint cordial, which is made with spirit of wine. Essence of peppermint is chiefly employed to correct the griping quality of purgative medicines, and to render such as are nauseous more palatable. The essence is, sometimes, taken alone on sugar, or in a little brandy or water, in cases of flatulence, colicky pains, spasms in the stomach or intestines, and fits of spasmodic asthma, in which it often affords speedy relief.

No. 33. ESSENCE OF CINNAMON.

This essence, made by mixing the oil of cinnamon with spirit of wine, is recommended for making the spirituous and simple cinnamon-water, in the same manner as the foregoing article, to which more sugar is usually added. Water, thus impregnated with the essential oil of cinnamon, is chiefly employed as a vehicle for administering the absorbent medicines in cases of looseness. (See Cretaceous Mixture, No. 64.) The cinnamon-water, not possessing the astringency of cinnamon, has no advantage over peppermint-water, and is here introduced as a proper substitute for the latter when the flavour is unpleasant to the patient.

No. 34. PREPARED CALOMEL,

Is one of the mildest preparations of mercury. In domestic practice it is principally employed as a worm medicine, and is unquestionably a valuable remedy for the destruction of every species of worms lodged in the alimentary canal. Its vermifuge power is increased by the addition of scammony, as in the Basilic Powder,

No. 36. For the complaints of the stomach and bowels, which are generally attributed to a redundancy of bile, but in fact arise from a deficiency of that secretion, (in consequence of an indolent state of the liver,) three or four grains may be taken once or twice a week, with ten grains of rhubarb, and three of Jamaica ginger powder, in the form of pills, with great advantage. (See Biliary Affections or Indigestion.)

In cutaneous affections, generally termed scorbutic, and chronic inflammation of the edges of the eyelids, half a grain of calomel, taken twice a day, with six drops of the Antimonial Wine, No. 16, will prove a good alternative medicine: a dose of rhubarb should be occasionally taken, to prevent such a quantity entering the constitution as might produce salivation, and its use discontinued as soon as it has affected the gums, or produced irritation in the palate or glands of the throat.

For rickets and convulsions in children, which frequently arise from an accumulation of slime in the intestines, or obstructions of the mesenteric glands, this medicine, given in doses proportioned to the age of the child, with a little magnesia, is often attended with the most salutary effects. Some practitioners prescribed it in the dose of six grains for a child of two years old; and experience has proved that children bear the operation of a large dose better than an adult; but in domestic medicine, it would be imprudent to exceed two grains for a child of one year old, which may be increased one grain for every two years to the age of five. On account of its being too heavy for suspension in a thin liquid, it should always be administered in a thick vehicle, as honey, currant-jelly, &c.

Calomel, although neither diuretic nor sudorific, never fails to increase the operation of such medicines when given in conjunction with them; hence it is very common to prescribe it with the antimonial powder, in fevers attended with *great dryness* of the skin, to excite perspiration, and with turpentine and squill-powder, to increase the secretion of urine.

Of all the mineral productions used in the practice of

medicine, mercury is by far the most valuable: it is the only certain antidote that has been discovered against the venereal poison.

In obstructions and chronic inflammation of the viscera, particularly the liver, calomel, judiciously administered, is a most valuable remedy. For this purpose it should be given in a small dose of one grain (formed into a pill, with conserve of roses) twice a day, so that it may enter the system: if it should disturb the bowels, half a grain of opium, or five grains of the opiate confection, should be added to each dose. Much vegetable food, and particularly acids, should be avoided during its use, to prevent griping pains and diarrhoea.

It frequently happens in cases of affections of the liver or stomach, and other local diseases, where it is necessary mercury should enter the system, the patient, through irritability of the stomach or bowels, cannot properly persist in its internal use, even in the smallest dose. In such case mercury may be introduced into the habit by the skin, in the form of an ointment. For this purpose the hydro-sublimed calomel will answer best. The quantity of three drachms of this preparation, well mixed with an ounce of fresh lard, makes an excellent white mercurial ointment, the size of a small nutmeg of which may be rubbed on the inside of the thigh, leg, or forearm, every night till it nearly disappears. The operation of the friction should be performed by the patient if possible, as the hand of an assistant may rob him of a considerable portion. This method of introducing mercury into the system, I have found to answer better in diseases of the liver, stomach, and glandular obstructions, than the exhibition of it by the mouth. By it the patient's stomach is not disordered, which is a great consideration when the local disease is attended with general debility.

The idea which generally prevails, that mercury disposes the body to the effects of cold, is probably erroneous; for, by keeping up a determination to the skin, it is more likely to act as a preventive. When mercury enters the system, it often affects the glands of the

throat, which, by the ignorant, is attributed to cold : certain it is, that those who are exposed to the changes of the weather, take mercury till it produces salivation, without experiencing any mischief.

The fashion which has long prevailed of attributing almost every disease to a disordered state of the liver, and a consequent morbid secretion of bile, has brought calomel, or the Blue Pill, into very general use. In nervous subjects, and especially when the stomach is in a state of morbid excitement, the indiscriminate exhibition of mercury (either the preparation termed calomel, or the Blue Pill,) has excited such a degree of excitement of the brain as to occasion madness, or a general irritability of nervous system which has continued for life. The 90th and 91st numbers of the Monthly Gazette of Health contain several cases of madness, and distressing cases of nervous restlessness which were occasioned by the injudicious employment of mercury. A French physician attributes the increase of madness in this country to the *abuse* of mercury.

Calomel is sometimes adulterated with prepared chalk, which may be discovered by pouring on a small quantity of the suspected calomel a little diluted vitriolic acid ; if an effervescence ensue, the adulteration is proved.

The last new name for calomel is *Submuriate of Mercury (Submurias Hydrargyri)*.

No. 35. : EMETIC TARTAR.

This potent preparation of antimony, in the quantity of one grain, dissolved in a little warm water, will produce full vomiting. It is generally given with ipecacuan powder, as the Emetic Powder, No. 88. On the first attack of hooping-cough, small-pox, measles, inflammatory fever, foulness of the stomach, and diseases of the lungs (as asthma and wheezing), it generally proves more successful than ipecacuan powder ; but in fevers attended with great prostration of strength or

looseness, ipecacuan, as operating less on the bowels, should be preferred.

As patients are differently affected by emetic tartar, the safest method of exhibiting it is by dissolving three grains in two ounces of warm water, and giving two table-spoonsful of the clear solution every half hour, till it vomits. For children, emetic tartar is not so safe an emetic as ipecacuan powder ; for when great debility of the system is present, even a small dose has been known to produce distressing effects. In domestic medicine, the preference should, therefore, be given to ipecacuan powder, when the patient is weakly.

To excite vomiting after a large dose of a *vegetable* poison, emetic tartar, in the dose of four grains, dissolved in a little water, answers better than ipecacuan, on account of its operating *more speedily* : but in cases of *mineral* poisons, ipecacuan, in the doses of two scruples to a drachm, is to be preferred, as the alkaline medicines administered to decompose the mineral poison would have the same effect on the emetic tartar, and thus render it inert. (See Treatment of Poisons.)

The observations on the use of antimonial wine (see No. 16.) are equally applicable to emetic tartar, of which the tartarised antimony wine is only a solution in white wine.

The last new name for emetic tartar is *Tartarised Antimony* (*Antimonium Tartarizatum*).

No. 36. BASILIC POWDER

Is a medicine of great ancient repute, as a remedy for *every species* of worms lodged in the alimentary canal, and is, without doubt, the most powerful and safe vermicifuge with which we are acquainted. It may be given to children of all ages, in a little honey or currant-jelly every second or third morning for a fortnight, in the dose of three grains to a child of one year old, increasing one grain for every year, to the age of twenty. The Tonic Mixture, No. 77, should be taken in the in-

termediate time, and continued for some time after the evacuation of worms. It is also a very excellent alternative purge for children, and by emptying the bowels of slime and crudities, is a good preventive of worms. It is likewise a very good purgative medicine after measles and other eruptive fevers that require the use of aperient medicines, and for ricketty children with enlarged bowels.

The basilic powder, in the dose of twenty or thirty grains, is also a valuable purgative medicine in dropsical cases, in which it will answer much better than large doses of cream of tartar, or any other cathartic, when a considerable discharge is required from the system. (See Pills, No. 80, and Dropsy.)

A very convenient method of administering this powder to children is in small cakes, made with gingerbread. For this purpose, a drachm of the powder may be well mixed with a little gingerbread paste, and afterwards divided into three equal parts, and baked. Each nut, containing twenty grains of Basilic Powder, may be divided into doses with sufficient accuracy, according to the age of the patient.*

No. 37. ANTIMONIAL FEBRIFUGE POWDER.

This medicine has long been sold under the name of “*Dr. James's Fever Powders*.” The best method of administering it is in the form of pills, by making a drachm into twelve pills, with a little conserve of roses or hips, one of which may be given every four or five hours, till it excites perspiration, in inflammatory fevers, rheumatism, and recent cough. Dr. Monro very judiciously cautions practitioners against the *indiscriminate* use of this medicine in every species of fever. “I have known,” says he, “several instances of *putrid* ulcerated sore throats, and *low* fevers, where it has

* These nuts, under the name of Basilic Nuts, may be procured at the Chemical and Medical Hall, 170. Piccadilly opposite Bond-Street.

brought on a purging that hurried the patients to their graves in a short time."

In cases of pleurisy, recent cough, *acute* rheumatism, and fever strictly inflammatory, it is, no doubt, a safe and efficacious remedy for producing perspiration, and quieting the circulation, but certainly not so certain in its effects in exciting perspiration as the antimonial wine, in the dose of twenty or thirty drops. It must be remembered, that in gaol or pestilential fevers, and putrid sore-throat, it may be productive of much mischief, by reducing the strength of the system, and thereby accelerating dissolution; for the low or putrid fever, in spite of all our efforts, will often run its course, and in such case the recovery of the patient will depend chiefly, if not entirely, on the natural strength of the constitution. The observations made on the indiscriminate use of antimonial preparations, under the head of Antimonial Wine, apply to this medicine.

The new name for this preparation is *Antimonial Powder.*

No. 38. CAMPHORATED ACETIC ACID.

The acetic acid has a powerful chemical action on contagious effluvia. In a state of vapour it corrects the vitiated atmosphere, and, from being respired, in some degree rouses the vital powers of the system, so as to enable it the better to resist infection. For this purpose it is certainly more efficacious than the once celebrated Thieves's vinegar; and for fumigating *small* rooms or wards, will answer as well as the nitrous or muriatic vapours recommended by Dr. Carmichael Smyth, Mr. Cruickshanks, and citizen Morveau.

It is generally used by smelling a sponge moistened with it in a wide-mouth bottle or gold case: but to correct the air of an infected room, it should be diffused through its atmosphere by evaporating it in a saucer over the blaze of a candle.

For the purpose of smelling, in cases of head-ache, or in the contaminated air of gaols, hospitals, crowded

rooms, &c., this acid is preferable to the volatile smelling salt, which has no effect in *destroying* putrid effluvia, and which by *much* use considerably injures the sense of smell, and may, in head-aches arising from a determination of blood to the brain, be productive of serious consequences. (See Smelling Salts, No. 39.)

This acid, impregnated with the essential oil of cloves, has been sold under the title of *Aromatic Spirit of Vinegar*. By this addition its antiseptic powers are not increased, but the oil, by becoming rancid, renders it unfit for keeping in warm climates, and, in a great measure, diminishes its volatility,

No. 39. TINCTURE FOR TOOTH-ACHE.

This composition, applied to the painful tooth by means of lint, generally affords immediate relief, and is no doubt the most efficacious remedy for tooth-ache that has been discovered. Having been first prepared by Mr. Perry (of Farnham), it is sold under the name of Perry's Essence for Tooth-Ache.

No. 40. BLISTERING PLASTER.

This plaster, composed of Spanish flies, wax, resin, and oil, is employed, as its title implies, for the purpose of blistering the skin. In spreading it, great care should be taken that the spatula is only sufficiently warm to soften it; for by much heat the acrid properties of the flies, in which its blistering powers solely reside, is destroyed. The best method of spreading it, is first to warm it at a little distance from the fire, till it be sufficiently soft to spread with a knife.

When the *speedy* operation of a blister is required, the skin of the part on which it is to be applied should be slightly inflamed by rubbing it with an onion, or the acetic acid. A little camphor scraped over the surface of the blister will often prevent strangury, a common effect of a blister.

Both the discharge and the inflammation produced

by blisters are very beneficial in cases of internal or deep-seated inflammation, rheumatism, apoplexy, palsy, and almost all affections of the brain, and diseases of the joints.

The new name for this plaster is *Plaster of Blistering Flies (Emplastrum Lyttæ)*.

No. 41. SPERMACETI OINTMENT.

This ointment, composed of spermaceti, white wax, and olive oil, is useful for healing blisters, but when the discharge is deemed necessary, the Savin Ointment, No. 44, should be used. It is likewise serviceable for softening the skin, and healing chaps and excoriations. This ointment, coloured with Alkanet root, is sold for lip-salve.

The new Latin name for this ointment is *Unguentum Cetacei*.

No. 42. BROWN CERATE.

This cerate, made of bees' wax, olive oil, and prepared calamine, having been first recommended by Dr. Turner, is usually distinguished by the name of Turner's Cerate. It is a good application for superficial ulcerations and excoriations, and for healing blisters; but for *recent* cuts, diachylon plaster, spread on leather, will answer best, by keeping the edges of the wound in contact. It must be remembered, that the first object in the treatment of ulcers, is to abate inflammation by avoiding exercise, and by the application of an emollient poultice of linseed meal, which by promoting a healthy discharge will prove more healing than all the boasted cerates. An ulcer, in a healing state, is neither painful nor attended with an offensive discharge; and therefore if a wound be painful, or the discharge offensive, it cannot be going on well. It must also be observed, that without rest and the proper application of a roller, no ointment will succeed in the healing of an ulcer.

The new name for this cerate is *Calamine Cerate (Ceratum Calaminæ)*.

No. 43. YELLOW BASILICON.

This ointment, composed of yellow resin, bees' wax, and oil, is an excellent application for promoting the digestion of ulcers; it should be spread *thinly* on lint, and applied the same size as the wound, and kept on by an external dressing of brown cerate, and a calico or flannel roller. It is not so proper an application for *recent* cuts, burns, or scalds, as the brown cerate.

The new name for this cerate is *Resin Cerate* (*Ceratum Resinæ*).

No. 44. SAVIN OINTMENT.

This ointment, made by gently boiling bruised Savin in fresh hog's lard, is employed for the purpose of making what is termed the perpetual blister, after the application of the blistering plaster. In consequence of its keeping up the discharge of blisters without producing the irritation and pain excited by the ointment made of Spanish flies, or the repetition of a blistering plaster, it is now generally employed for that purpose; but in cases of palsy and *chronic* rheumatism, where the irritation of a blister is more required than the discharge, the Spanish fly ointment is preferable.

No. 45. SQUILL PILL.

This composition of squill, gum ammoniac, Spanish soap, and ginger, taken from ten to fifteen grains twice a day, is a powerful medicine in promoting expectoration, and increasing the secretion of urine: hence it is a valuable remedy in cases of *chronic* coughs and asthmatic affections, attended with *viscid* phlegm, and in dropsical complaints. (See Oxymel of Hedge Hyssop, and Oxymel of the Colchicum Seeds.)

The squill pill, combined with calomel, is an efficacious and valuable remedy for dropsy, either of the chest, belly, or extremities, in the proportions recommended for Dropsy, No. 80.

No. 46. APERIENT PILLS.

This composition is introduced in the place of the Compound Colocynth Pill, on account of being a more active aperient, and much more efficacious in carrying off bile and slime from the stomach and intestines. It likewise affords an excellent purgative medicine for head-ache, arising from a determination of blood to the brain, and especially when the consequence of a suppression of the piles or periodical secretion, which it will often succeed in restoring. It is also a valuable aperient medicine in cases of periodical eruptions of the skin, or those cutaneous complaints which are attributed to foulness of the blood, and in cases of gout. One great recommendation of these pills is, they do not irritate the rectum. The increase of diseases of the rectum has been very justly attributed, by a late writer, to the irritation occasioned by popular antibilious remedies, the basis of which is aloes.

The dose is from two to three pills, which may be taken occasionally.

These pills having been first prescribed by Dr. Dick, an eminent physician of Bengal, in cases of what are termed bilious attacks, are generally sold under the name of the “*Bengal Antibilious Pills.*” *

No. 47. LENITIVE ELECTUARY.

This composition of senna, cassia, tamarind pulp, figs, &c. has been long esteemed as a convenient and gentle laxative medicine for habitual costiveness, piles, &c. It may be taken to the extent of a tea-spoonful occasionally. (See Electuary for the Piles, No. 85.) A great objection to this composition is, the liability of the figs, prunes, &c. to ferment in the stomach, the consequences of which are the production of an acid, flatulence, and griping pains.

The new name for this electuary is *Confection of Senna (Confectio Sennæ).*

* At the Medical Hall, 170. Piccadilly.

No. 48. PERUVIAN BARK.

Three species of this bark are made use of in this country, viz. the pale, the red, and the yellow, which are promiscuously administered, from a scruple to a drachm, every hour, in fevers of the intermittent class, commonly called agues, with equal advantage. Some practitioners recommend the red, when it can be obtained genuine: but through the great difficulty in procuring the true sort, the pale has latterly had the preference. If the full dose disagree with the stomach and bowels, so as to produce vomiting or looseness, three or four drops of laudanum should be given with every or every other dose, and two or three grains of Jamaica ginger, or five of cinnamon powder, if it oppress the stomach. (See Tonic Powder, No. 91.) The powder may be taken either in camphorated julep or peppermint-water; or, in order to cover its ill taste, to which some people have an almost invincible dislike, in an infusion of liquorice root, or in milk, which I have found to answer best. It should be swallowed immediately after it is mixed, otherwise the flavour of the bark will be imparted to the milk.

When the bark, in powder, cannot be made to stay on the stomach, the Essential Salt of Bark, No. 24, affords a very proper substitute, and may be employed with equal advantage. During the hot fit of an intermittent, it may be given with a table-spoonful of Mindererus's spirit.

In urgent cases of intermittent fever, Dr. Cullen and Dr. Lind advise the bark in powder to be given in the dose of a drachm and a half to two drachms every hour. The stomach, however, in this respect is the best guide, and as much as it will bear may in general be given with propriety; for, as Torti and other celebrated writers have inculcated, the *larger* the dose, and the *quicker* the repetitions of it, the greater is the power of the medicine in stopping the paroxysms of ague, and the less of it is found to be taken in the end; whereas it has been observed, that when given in small doses, and at

long intervals, the sum of the whole quantity taken has been much more considerable, yet it has not produced the desired effect. (See Ague.)

The Peruvian bark, as a strengthening medicine, was some years ago more generally prescribed than any other of the class of tonics. In mortifications, *putrid* sore-throat, and *malignant* fevers, it is still often exhibited, from twenty to forty grains, every two or three hours, in a glass of Port wine, or camphorated julep. In a great variety of diseases, as St. Vitus's dance, scrophula or king's evil, rickets, nervous irritability, indigestion, hysterick fits, and dropsy, it is likewise administered with great advantage with such combinations as predominant symptoms may indicate. When the bark is entirely nauseated from irritability of the stomach, or from an aversion of the patient to the taste of the medicine, it will be proper to administer it clysterwise, in the quantity of two or three drachms in half a pint of beef-tea every three hours, in which form it often proves as efficacious as when taken by the mouth.

In cough, asthma, consumption of the lungs, and difficulty of breathing, the bark should not be employed unless sanctioned by an experienced practitioner.

The decoction of bark is made by boiling one ounce of bruised bark in a pint and a half of water, in a close-covered vessel for ten minutes. The liquor should be strained, while hot, through a coarse strainer; for if suffered to stand till cold, the most efficacious part of the bark (the resin) will subside. An infusion, both in boiling and cold water, has been recommended in preference to the decoction, on the supposition that the volatile and most active parts escape by boiling; but if a close vessel be employed, this objection is removed. (See Decoction and Infusion.)

The rhatany-root is, in many respects, a better tonic medicine than the Peruvian bark; and in the cure of intermittents, and the treatment of diseases that require the use of a strengthening medicine, it has proved more successful. It is also less disagreeable to the palate. (See Ague, and Rhatany Root.)

Although the Peruvian bark is termed a *febrifuge* medicine, we are not by it to understand that it is proper in *all* fevers. Indeed it is only in the intermittent class, where there is a complete intermission, that it has been administered with evident advantage; and even when those cases are attended with much visceral obstruction or local plethora it will prove injurious. (See Ague.) In inflammatory fevers, or fevers attended with local inflammation, it is decidedly very improper; and even in mortifications attended with a quick pulse, or feverish state of the system, it is inadmissible. When we say, likewise, that it is more or less employed in cases of scrophula, rickets, St. Vitus's dance, &c. it is to be understood, that the system is free from fever, and the stomach and bowels in a proper state for its exhibition; for these diseases often occur in inflammatory subjects, when the Peruvian bark would be injurious. Indeed it may be said, notwithstanding this medicine has been so much extolled as a febrifuge, that it has proved chiefly serviceable in cases of convalescence after acute disease; when, no doubt, by invigorating the stomach, it will hasten the recovery of the patient. In cases of debility induced by local diseases, as ulcers with great discharge, &c. it is also a good strengthening medicine.

A preparation of bark, termed the Sulphate of Quinine, has lately been highly extolled as a remedy for tic dououreux, ague, and cases of debility, by some eminent physicians of the continent, but on account of its not containing the astringent principle, it is not so efficacious as the Salt of Bark.

The new name for Peruvian bark is *Cinchona* (*Cortex Cinchonæ*).

No. 49. JAMAICA GINGER

Has lately been much extolled as a remedy for gout, indigestion, and flatulence, in the dose of twenty grains to a tea-spoonful in any common vehicle; and where the use of a warm stomachic is required, it is no doubt

a valuable medicine. Ginger, finely powdered, taken in tea or milk, warms and invigorates the stomach without heating the body or accelerating the circulation; hence it has proved serviceable in shortening a fit of the gout, and its continued use has in many instances prevented its recurrence, probably by promoting digestion, and counteracting the debilitating and other injurious effects of a too free use of vinous or spirituous liquors. Ginger, although pungent to the taste, often allays the irritation of piles, and speedily removes them; and has succeeded in many distressing affections of the rectum or great gut, arising from chronic inflammation, probably by increasing the secretion of mucus from its internal surface. In cases of indigestion, its effects are more permanent when combined with a bitter, as the Tincture of Ginger and Camomile, No. 7.

No. 50. SENNA LEAVES.

In domestic medicine senna leaves have been long employed as a purgative for children. It is customary to disguise its flavour by infusing two drachms, with a little bohea tea, in a quarter of a pint of boiling water, and adding, when poured off clear, a little brown sugar and milk. The ill taste of the senna may thus be so far covered, that children will not discover it; a few coriander or caraway seeds may also be added, to correct its griping quality. Senna is not so efficacious a purge for children as the basalic powder, which has likewise the great advantage of removing slime and destroying worms.

To adults, senna is generally given in conjunction with other purgative medicines, as the Aperient Mixture, No. 62.

No. 51. MANNA

Is chiefly used as an ingredient in making a purgative.

tive mixture, the recipe for which is given under the head of Aperient Mixture, No. 62.

Manna being very subject to generate acidity and air in the bowels, is by no means so good a purgative medicine for infants, as rhubarb combined with magnesia or the basalic powder.

No. 52. GUM ARABIC.

A solution of this gum in the proportion of one ounce in a pint of common or barley water, taken to the extent of a tea-cupful, furnishes a very excellent lubricating beverage, in cases of inflammation of the kidneys or bladder, bloody urine (arising from gravel or other causes); and when the natural mucus of the intestines is abraded, as in cases of dysentery and violent looseness. With the addition of nitre, it will prove very serviceable in strangury and heat of urine. (See *Diuretic Powder*, No. 89.) As a pectoral drink in cases of pleurisy, gum arabic (in the proportion of two or three drachms to a pint) is a valuable addition to the compound barley-water, directions for making of which are given in the Appendix.

The new name for this Gum is *Acacia Gum* (*Gum Acaciæ*).

No. 53. PURIFIED NITRE.

This salt possesses a cooling quality, and in the dose of six or ten grains, dissolved in water, Mindererus's spirit, or camphorated julep, quenches thirst, abates febrile heat, and quiets the circulation. It is likewise very efficacious in strangury. (See *Gum Arabic*, No. 52.) In pleurisy and inflammation of the lungs, it is a very doubtful remedy; and although it may succeed in abating the constitutional fever, it has certainly been found to increase the local mischief, and thereby aggravate cough.

A solution of nitre in water, in the proportion of half a drachm to half a pint, is a good gargle for dis-

persing inflammation of the throat and mouth; but a few grains gradually dissolved on the tongue, and swallowed with the saliva, generally answer in such cases much better. (See *Discutient Gargle*, No. 92.)

The new name for Nitre or Salt Petre, is *Nitrate of Potash* (*Nitras Potassæ*).

No. 54. CREAM OF TARTAR

Is a mild and cooling aperient, and deservedly much employed as an alterative medicine for children, in the inflammatory eruptions of the skin, which make their appearance in the spring or summer. The customary addition of an equal quantity of sulphur to it, in cutaneous affections, is very judicious.

The most convenient and pleasant method of giving cream of tartar and sulphur to children, is the form of an electuary (made with a sufficient quantity of honey), of which a tea-spoonful may be given every morning with a draught of sassafras tea; if it should not operate sufficiently on the bowels, half a drachm of jalap powder may be added to an electuary of an ounce of flowers of sulphur, and the same quantity of cream of tartar.

Cream of tartar is much recommended by Professor Home, as an active and efficacious purge in dropsical complaints: it has not succeeded so well in these cases as the basilic powder, which produces copious discharges from the system, without occasioning the debility which commonly follows large doses of cream of tartar.

The acid beverage so much used in hot climates under the name of *Imperial Drink*, to cool the body and quench thirst, is made with cream of tartar in the following manner: — Take of cream of tartar three drachms, and the rind of one lemon: pour on them (in an earthen vessel) one quart of boiling water, and, when cold, add a sufficiency of white sugar to render it agreeable to the palate.

Cream of tartar is likewise one of the articles used by Dr. Hehneman, to make his celebrated test for detect-

ing lead fraudulently added to Port wine ; a practice so prevalent among wine merchants, that the method of discovering the fraud cannot be too generally known. It is prepared as follows :

Two drachms of cream of tartar, one drachm of dry liver of sulphur, are to be shaken in a two-ounce phial, filled with distilled water, well corked : the phial is to be occasionally shaken for about ten minutes ; when the powder has subsided, decant the clear liquor, and preserve it in a well-stopped bottle for use : from sixteen to twenty drops of this liquor are to be dropped into a small glass filled with the suspected wine : if the wine turns blackish or muddy, and deposits a dark-coloured sediment, the adulteration with lead is proved, but not otherwise.

Cream of tartar in powder is sometimes adulterated with sulphate of potash, which may be detected by pouring on half an ounce of the suspected cream of tartar two or three ounces of pure water, shake the mixture frequently, and let it stand one hour : the sulphate of potash being more soluble than the cream of tartar, will be taken up, and may be known by the *bitter* taste of the solution.

The last new name for Cream of Tartar is *Supertartrate of Potash* (*Supertartras Potassæ*).

No. 55. WASHED SULPHUR.

This preparation is better known under the name of the flowers of sulphur. In the dose of half a drachm to a drachm, it operates as an aperient medicine, and, by increasing the insensible perspiration, has proved of great utility in cutaneous obstructions and foulness. It is given with advantage in conjunction with cream of tartar. (See No. 54.) It is a mild aperient, and, in consequence of its operating without exciting heat or irritation in the bowels, it is generally preferred in piles. When the bowels are confined, it will be necessary to add a proportion of the lenitive electuary, to which a little nitre will prove serviceable, if the piles be attended with inflammation. (See Piles, No. 85.) The aperient sulphureous water, under the head of Rochelle Salt,

No. 2., affords an excellent substitute for this composition, and in cases of inflammation is entitled to the preference.

In *chronic* rheumatism and gouty affections of the joints, unattended with fever, a tea-spoonful of flowers of sulphur, with half the quantity of Jamaica ginger powder, taken every morning in a glass of milk, has proved an excellent remedy.

An ointment made of one part of flowers of sulphur, and four of hog's lard, is an efficacious remedy for the itch, and much safer than mercury: its internal use is at the same time proper. (See Itch Ointment, No. 107.)

Sulphur, although apparently a medicine of no considerable efficacy, has the property of restraining the action of some of the most powerful poisons. Mercury, by an admixture with it, is almost rendered inert; thus, *Æthiop*'s mineral, which is composed of equal parts of flowers of sulphur and mercury, may be given to the extent of sulphur alone, without manifesting any further effects on the system than might be expected from the exhibition of sulphur; when mercury, therefore, has exceeded in operation, sulphur is employed to abate the effects. Even the corrosive poison, arsenic, by the addition of sulphur, becomes almost innocent; but, for counteracting the effects of mineral poison when taken into the stomach, the liver of sulphur will answer best, on account of its solubility in water, and its more rapid action on them. (See Treatment of Mineral Poisons.)

The preparation of sulphur, termed (from its colour) *Milk of Sulphur*, so far from possessing any advantage over the flowers or washed sulphur, is certainly less efficacious, the peculiar properties of the sulphur being impaired by the process employed for making it,

The new name for Flowers of Sulphur is *Sublimed Sulphur* (*Sulphur Sublimatum*).

No. 56. COURT PLASTER.

This well-known plaster is an useful application for

recent *superficial* cuts, to keep the edges in contact, and defend them from the action of the atmospheric air, &c. If the wound be deep, or attended with much irritation, or the part be bruised, the diachylon plaster, spread on leather or black silk, will answer best. (See *Cuts.*)

No. 57. LINT.

This is a very useful article in a Medicine Chest, for the purpose of dressing and cleaning sores or ulcers. When applied dry, it will destroy fungous flesh, and with a little pressure stop the bleeding of superficial wounds, and the punctures of leeches.

No. 58. DIACHYLON PLASTER

Spread on leather, is a common and good application for slight contusions, excoriations of the skin, chilblains, corns, and fresh cuts.

No. 59. GUM PLASTER

Is an useful application, spread on leather, for promoting the suppuration of boils and abscesses.

No. 60. CARBONATE OF SODA.

This salt dissolved in pure water, in the proportion of three drachms to a pint, forms a valuable alterative medicine; and in the dose of a wine-glassful two or three times a day, will prove highly beneficial to children affected with scrophula, rickets, scald-head, cutaneous eruptions, and acidity in the stomach. (See *Rickets* and *Scrophula.*) A weak solution of one ounce in five pints of water, super-saturated with fixed air by Nooth's machine, is sold under the name of Soda-water, and much recommended as a remedy for stone and gravel. When this water disagrees with the stomach, pills of dried soda and Castile soap afford a good substitute. (See

Pills for Gravel and Stone, No. 81.) Natron saturated with fixed air, termed *Carbonate of Soda*, is preferable to the dried natron in cases of gravel and stone. Two drachms of this preparation, dissolved in a quart of water, is superior as a medicine to the soda-water, on account of the fixed air not being disengaged when exposed to the atmosphere. The article sold in this country under the title of *Soda-water*, is generally made with the carbonate of potash and oil of vitriol; and as a cooling beverage in summer it may answer as well as the true soda-water; but in its medicinal properties it is very different, and in cases of stone or gravel will prove of no utility.

Prepared natron is a medicine of great power in the cure of many constitutional diseases; and although slow, is a more certain alterative in complaints of long standing than those of a more active kind. Its *continued* use has, in many instances, succeeded in dispersing scirrhous or cancerous tumours, and in the cure of obstinate cases of scrophula, after mercury and other more active alterative medicines had failed. When gout is attended with acidity in the stomach, it is a valuable remedy. (See Gout.) To children, the solution of it in water, as recommended above, may be conveniently given in milk. (See Lime-water and Rickets.)

COLAVEMENT BAG.

The use of this machine is to inject into the rectum a fluid, for the purposes of hastening the operation of an aperient medicine taken by the mouth, of allaying irritation, of procuring evacuations when the stomach will not bear an aperient medicine, and of supporting the strength of a patient when nutriment cannot be introduced into the stomach. (See Lavements or Clysters.)

PROBANG.

This instrument is used for the purpose of removing from the gullet any article that may be lodged in it; as

a pin, bone of a fish, &c. The sponge at the end should be moistened by immersion in warm water before it is introduced. (See Substances lodged in the Gullet.)

TOURNIQUET.

For the use of this instrument, see Means of Stopping the Flow of Blood from Wounded Limbs.

FAMILY PRESCRIPTIONS;

OR,

USEFUL COMPOUNDS

OF THE

DIFFERENT MEDICINES RECOMMENDED BY THE AUTHOR
TO SUPPLY THE FAMILY MEDICINE CHEST.

INTERNAL REMEDIES.

MIXTURES.

THE difference between this form of medicine and a julep is, that a **MIXTURE** is composed both of soluble and insoluble substances. As there is no regular measure for the dose of a mixture, many physicians give the preference to a draught, which is a single dose of a mixture. Patients often prefer this liquid form of medicine to either a pill, bolus, or electuary, and in general its operation is more speedy and effectual.

No. 61. Stomachic Mixture.

Take of the essential salt of bark, No. 24, one drachm; dissolve in half a pint of distilled water; then add tincture of Jamaica ginger and camomile, No. 7, two drachms.

Two or three tablespoonsful of this mixture may be taken three times a day. When acidity prevails in the stomach, two drachms of the carbonate of soda, No. 60, or a drachm of magnesia, No. 1, may be added; or in cases of costiveness, unattended with acidity, two or three drachms of Epsom salt. See Tincture of Fumitory.

No. 62. Aperient Mixture.

Take of senna leaves, two drachms; infuse in a quarter of a pint of boiling water for half an hour; then strain, and add Rochelle or Epsom salt, No. 2, half an ounce; compound tincture of senna, No. 8, an ounce.

Three tablespoonsful to be taken every two or three hours, till it operates.

In cases of obstinate costiveness or colic, a dessertspoonful of castor oil, No. 3, may be taken in each dose, and a laxative clyster, No. 97, will be also necessary, if a speedy evacuation be required. See Croton Oil under the head of Costiveness.

No. 63. *Sudorific Mixture.*

Take of Mindererus's spirit, No. 10, three ounces; ipecacuan powder, No. 23, ten grains; pure water, five ounces; essence of peppermint, No. 32, fifteen drops. Mix.

Three tablespoonsful to be taken every two hours, till it produces the desired effect.

N. B. All medicines administered to promote perspiration, should be assisted in their operation by a plentiful use of tepid drinks, such as warm barley-water, gruel, tea, or the like.

No. 64. *Cretaceous Mixture.*

Take of the compound cretaceous powder, No. 29, two drachms; gum arabic powder, No. 52, three drachms; laudanum, No. 31, twenty drops; pure water, six ounces; essence of cinnamon, No. 33, forty drops: dissolve the gum arabic in an ounce of water, and rub with it the compound powder; then add the other ingredients.

Two tablespoonsful to be taken after every loose stool, in cases of diarrhoea or dysentery. (See Diarrhoea, Cretaceous Powder, and Lime-water.)

No. 65. *Anti-hysteric Mixture.*

Take of tincture of asafoetida, No. 19, three drachms: sal volatile, No. 13, two drachms; camphorated julep, No. 28, six ounces. Mix.

Two tablespoonsful to be taken every three or four hours.

No. 66. *Cough Mixture.*

Take of tartarised antimony wine, one drachm, or ipecacuan wine, two drachms, or ipecacuan powder, No. 23, ten grains; gum arabic powder, No. 52, four drachms; laudanum, No. 31, twenty drops; simple oxymel, one ounce; almond emulsion, six ounces. Mix.

Two tablespoonsful to be taken every two hours, for recent cough, pleurisy, and inflammation of the lungs. In case of fever or a dry skin, the tartarised antimony wine should be preferred to ipecacuan. The following drops are not less efficacious in allaying cough than the foregoing mixture.

Take of tartarised antimony wine, three drachms; liquid laudanum, half a drachm: twenty drops to be taken three times a

day in a wineglassful of linseed tea, almond emulsion, or barley water. (See Cough, and Oxymel of the Colchicum Seeds.)

No. 67. *Camphorated Bark Mixture.*

Take of essential salt of bark, No. 24, one drachm; dissolve in camphorated julep, No. 28, six ounces; sweet spirit of nitre, No. 15, two drachms. Mix.

Three tablespoonsful to be taken every two or three hours, in low infectious fevers, putrid sore-throat, and mortifications.

The bark thus associated, acts, as M. Lassonne has observed, with more energy and force, whether it be employed for the purpose of curing fever or gangrene; and this assertion Dr. Cullen believes, and experience has proved, to be well founded.

No. 68. *Anti-asthmatic Mixture.*

Take of paregoric elixir, No. 11, one ounce; camphorated julep, No. 28, six ounces; tincture of asafoetida, No. 19, half an ounce; or vitriolic ether, No. 14, three drachms; oxymel of colchicum seeds, an ounce. Mix.

Two tablespoonsful to be taken for chronic difficulty of breathing and *spasmodic* asthma unattended with fever. (See Asthma.)

No. 69. *Gout Mixture.*

Take of volatile tincture of guaiac gum, No. 20, six drachms; camphorated mixture, No. 28, six ounces; tincture of rhubarb, No. 4, half an ounce; honey, half an ounce; alkaline tincture of colchicum seeds, two drachms: rub the tincture of guaiac gum with the honey, in a glass mortar; then add the other articles by degrees.

Two tablespoonsful to be taken every four or five hours, (See Gout.)

This mixture is employed as a restorative, after the inflammatory stage of gout is over. Gouty subjects of languid constitutions or advanced in life, may however take it during the paroxysm with great advantage.

No. 70. *Anti-spasmodic Mixture.*

Take of ether, two drachms; sp. sal volatile, a drachm and a half; liquid laudanum, thirty drops; camphorated mixture, six ounces. Mix.

Two tablespoonsful to be taken every three or four hours, for spasmodic colic and asthma.

This is a very efficacious remedy for spasms of the stomach. In cases of colic, it should not be administered till three or four evacuations have been procured from the bowels, by means of

castor oil, No. 3, or the aperient mixture, No. 61, and clyster, No. 97, unless attended with very acute pain in the bowels.

No. 71. *Anti-rheumatic Mixture.*

Take of volatile tincture of guaiac gum, No. 20, half an ounce; honey, half an ounce; camphorated julep, No. 28, six ounces; alkaline tincture of colchicum seeds, two drachms: rub the tincture of guaiac gum with the honey, in a glass mortar, and add the other articles by degrees.

Two tablespoonsful to be taken three or four times a day for chronic rheumatism. (See Rheumatism.)

No. 72. *Nervous Mixture.*

Take of essential salt of bark, No. 24, one drachm, or extract of rhatany-root, a drachm and a half; dissolve in camphorated julep, No. 28, or infusion of Buchu leaves, six ounces; then add spirit of sal volatile, No. 13, two drachms; compound spirit of lavender, No. 9, three drachms.

Two tablespoonsful to be taken three or four times a day. For general nervous irritability and periodical head-aches, this is a very valuable remedy.

No. 73. *Absorbent Mixture.*

Take of magnesia, No. 1, one drachm; rhubarb powder, No. 26, ten grains; laudanum, No. 31, six drops; pure water, two ounces; essence of mint, No. 32, 4 drops. Mix.

A teaspoonful to be given in cases of gripes, and flatulence, affecting children: if attended with purging, the following mixture will answer best.

Take of lime-water, two ounces; compound tincture of cardamom seeds, two drachms; liquid laudanum, six drops: to be given as the preceding mixture.

No. 74. *Stimulating Mixture.*

Take of horse-radish root, sliced, and mustard seed, bruised, of each one ounce; infuse in a pint of boiling water in a gentle heat for twelve hours; then strain and add compound spirit of lavender, No. 9, one ounce.

A wineglassful to be taken three or four times a day, for paralytic complaints. (See Palsy.)

No. 75. *For Scrophula or King's Evil.*

Take of essential salt of bark, No. 24, two drachms; muriate of lime, three drachms, or prepared natron, two drachms; dissolve in a pint of distilled water; then add compound tincture of rhatany-root, No. 6, one ounce.

Three tablespoonsful to be taken three times a day. (See Scrophula and Tincture of Iodine.)

No. 76. *For the Hooping-Cough.*

Take of ipecacuan powder, No. 23, ten grains; tincture of asafoetida, No. 19, one drachm; laudanum, ten drops; pure water, two ounces. Mix.

To a child of two years old, a teaspoonful may be given every three hours, increasing ten drops for every additional year. (See Hooping-cough.)

No. 77. *Tonic Mixture.*

Take of extract of rhatany-root, three drachms; dissolve in twelve ounces of infusion of buchu leaves, and add aromatic tincture of rhatany-root, one ounce; sp. sal volatile, No. 13, two drachms.

Two or three tablespoonfuls to be taken every three or four hours, for relaxation and weakness of the system. When attended with a sluggish state of the bowels, three drachms of the sulphate of magnesia, or Cheltenham salt, may be added; and, in case of profuse perspiration, two drachms of the diluted vitriolic acid may be substituted for the sp. sal volatile.

No. 78. *Saline Mixture.*

Take of crystallized acid of lemon, one drachm, or fresh lemon juice, an ounce and a half; salt of wormwood, No. 21, one drachm; white sugar, three drachms; pure water, twelve ounces; essence of peppermint, No. 32, thirty drops. Mix.

A teacupful to be taken frequently in inflammatory fevers and sore-throat. (See No. 21 and 22.)

PILLS.

A PILL is a form of medicine generally composed of drugs which operate in small doses, the nauseous and offensive taste or smell of which requires them to be concealed from the palate. A pill should be of the consistence of firm paste, of a round form, and not to exceed five grains in weight, unless the composition be ponderous.

No. 79. *Asthmatic Pills.*

Take of squill pill, No. 45, extract of buchu leaves, of each one drachm. Mix and divide into twenty-four pills.

Two or three to be taken twice or thrice a day. (See Asthma.)

No. 80. *Pills for the Dropsy.*

Take of squill pill, No. 45, two drachms; prepared calomel, No. 34, ten grains; gamboge powder, a scruple. Mix well together, and divide into thirty-six pills.

Three to be taken twice a day, with a wineglassful of the tonic mixture, No. 77.

After taking these pills six days the calomel should be omitted; and in the course of ten days, if the mouth be not affected by it, it may again be taken with advantage. (See *Dropsy*.)

No. 81. *Pills for the Gravel.*

Take of dried natron, two drachms; Spanish soap, two drachms; with oil of juniper make into sixty pills.

Of which three are to be taken three times a day. When the mephitic alkaline water (noticed under the head of salt of Wormwood, No. 21.) disagrees with the patient, this form affords an excellent substitute.

No. 82. *Tonic Pills.*

Take of essential salt of bark, No. 24, one drachm; salt of steel, No. 25, a scruple; gum olibanum, one drachm, with simple syrup make a mass, and divide into thirty-six pills.

Three to be taken twice a day, for fluor albus and gleet.

No. 83. *Bilious Pills.*

Take of rhubarb, No. 26, two drachms; calomel, No. 34, half a drachm; essence of peppermint, No. 32, ten drops: with a little syrup make into thirty pills.

This composition is more mild but not so efficacious in emptying the alimentary canal and correcting the secretion of the liver as the antibilious pills, No. 46, page 46.

No. 84. *Cathartic Pills.*

Take of compound colocynth pill, No. 46, one drachm; calomel, No. 34, fifteen grains; mix, and form into fifteen pills.

Three to be taken for a dose, in obstinate constipation of the bowels, and redundancy of bile.

These pills are sold under the name of Dr. Hugh Smith's Antibilious Pills. (See *Aperient Pills*, No. 46.)

ELECTUARIES.

AN ELECTUARY is a form of medicine composed of powders, incorporated with some syrup, or conserve, or honey. As a

draught is a single dose of a mixture, so is a bolus a single dose of an electuary. As this form is much disposed to ferment, it should be kept in a cool place. It should be made of the consistency of honey.

No. 85. *For the Piles.*

Take of flowers of sulphur, No. 55, six drachms, lenitive electuary, No. 47, two ounces, nitre powder, No. 53, half a drachm. Mix.

A teaspoonful to be taken twice a day. (See Piles.)

No. 86. *For the Tape Worm.*

Take of granulated tin, six ounces; carbonate of iron, one ounce; conserve of wormwood, three ounces. Mix.

A large teaspoonful to be taken every morning, with a draught of lime water. (See Worms.)

No. 87. *Cough Linctus.*

Take of spermaceti powder, two drachms: oil of almonds, three drachms; conserve of hips, one ounce; syrup of wild poppies, six drachms: ipecacuan powder, No. 23, ten grains; diluted vitriolic acid, No. 18, fifteen drops. Mix.

A teaspoonful to be taken every two or three hours, or when the cough is troublesome. (See Oxymel of Colchicum Seeds and Lettuce Lozenge.

POWDERS.

This form is only proper for such materials that will admit of being sufficiently dried so as to be reduced to powder, without the loss of their virtue: there are, however, many substances of this kind that are not given in powder, on account of their bulk and disagreeable flavour. It is worthy notice, that some articles answer much better in powder than in any other form. The Peruvian bark, and other medicines, have only answered in intermittents when given in powder; so that much of their effects may be attributed to their mechanical action on the stomach.

No. 11. *Emetic Powder.*

Take of ipecacuan powder, No. 23, a scruple; emetic tartar, No. 35, one grain. Mix.

No. 88. *Diuretic Powder.*

Take of purified nitre, No. 53, one drachm; gum arabic, No. 52, three drachms. Mix, and divide equally into twelve papers.

One to be taken three times a day, with a wine glass of infusion of buchu leaves or barley water, for strangury, heat of urine, and gravel.

No. 89. *Worm Powder.*

See Basilic Powder, No. 36. Page .

No. 90. *Tonic Powder.*

Take of Peruvian bark powder, No. 48, or rhatany-root powder, one ounce: Jamaica ginger powder, No. 49, half a drachm. Mix, and divide into twelve papers.

One to be taken every or every other hour, in intermittent fevers.

GARGLES.

A GARGLE is a liquid form of medicine used for washing the mouth or throat when inflamed, ulcerated, parched, or foul. — The quantity of two tablespoonsful is generally taken into the mouth, moved briskly about, and then spit out: or when the patient is not capable of doing this with any advantage, the liquor may be injected by a syringe, or applied by means of a sponge, secured to the end of a piece of whalebone. The use of a gargle should be repeated every hour in cases of ulceration or inflammation.

No. 92. *Discutient Gargle.*

Take of purified nitre, No. 53, one drachm; gum arabic, No. 52, three drachms: dissolve in half a pint of pure water.

To be used frequently for inflammatory sore-throat. (See Inflammation of the Throat.)

No. 93. *Acidulated Gargle.*

Take of red rose leaves, three drachms; infuse in a pint of boiling water till cold; then strain, and add diluted vitriolic acid, No. 18, thirty drops.

For inflammation of the tonsils and mouth.

No. 94. *Astringent Gargle.*

Take of oak bark, half an ounce; boil in a pint of water for a quarter of an hour: then strain, and add alum two drachms; red port wine, four ounces.

To be used every two or three hours, in cases of relaxation, or falling down of the soft palate.

No. 95. *Detergent Gargle.*

Add to the acidulated gargle, No 93, tincture of myrrh, No. 16, and honey, of each half an ounce.

For the malignant ulcerated sore-throat, thrush and foul ulcers in the mouth.

LAVEMENS OR CLYSTERS.

The term lavement, or clyster, signifies any liquid medicine injected into the rectum, or great intestine. This class of medicine is much employed on the Continent, but has not met with that attention in England to which its importance entitles it, partly through the antipathy of patients, but principally on account of the difficulty of procuring a person to administer it properly. To render this form of medicine more popular, Mr. Savigny has invented a simple machine to enable a person to administer it to himself with the greatest facility.

The lavement is used for the same purposes as mixtures. Thus, in cases of costiveness, it not only softens the fæces collected in the lower intestine (often the cause of costiveness), but also by stimulating the parts, purges the bowels. In cases of obstinate costiveness, or obstructions in the bowels, a lavement accelerates the operation of purgative medicines taken by the mouth. In cases of violent diarrhoea, dysentery, and the purging of children, a lavement of vegetable jelly (as starch or arrow-root, to which laudanum may be added in case of violent pains or irritation) is a most important remedy. The Peruvian bark may also be exhibited this way to patients whose stomachs will not bear it in intermittent fevers, and also laudanum in acute pain in the bowels.

Clysters are likewise used as a fomentation in cases of inflammation of the bladder, womb, or bowels: and for nourishing the body when the patient cannot retain food, or the stomach is not able to swallow it, through inflammation of the throat, or obstruction in the gullet.

The following are the most useful:

No. 96. *Anodyne Lavement.*

Take of starch jelly (fresh made), half a pint; laudanum, No. 31, forty drops. Mix.

The whole to be injected lukewarm by means of a pewter lavement syringe,* in cases of dysentery, violent purging, and pain in the bowels.

No. 97. *Laxative Lavement.*

Take of Epsom salt, No. 2, two ounces. Dissolve in three quarters, of a pint of thin gruel or broth (warm) with an ounce of fresh butter, or sweet oil.

No. 98. *Anti-spasmodic Lavement.*

Take of tincture of asafoetida, No. 19, half an ounce; laudanum, No 31., forty drops; gruel, half a pint. Mix.

For spasmodic affections of the bowels.

No. 99. *Nutrient Lavement.*

Take of strong beef tea, thickened with hartshorn shavings, or arrow root, twelve ounces.

In cases of extreme debility of the body, or when the patient cannot take food by the mouth, through some obstruction in the throat, this affords considerable support to the system, and has been the means of preserving the lives of patients till the cause has been removed.

It should be administered with a flexible tube, longer than the clyster pipes in common use. In consequence of the improper mode of exhibiting a nutrient or quieting lavement, the lower intestine has been so irritated as to bring on tenesmus or purging, which, in debilitated subjects, has been productive of serious consequences.

EXTERNAL APPLICATIONS.

LOTIONS AND EMBROCATIONS.

A LOTION is a form of medicine chiefly composed of an aqueous liquid, used as a wash, or applied by folds of linen.

No. 100. *Eye-water.*

Take of Goulard's extract of lead, No. 30, ten drops; white

* There are several sorts of this instrument, the one with a curved or flexible tube is the most convenient, on account of the patient being able to use it without assistance.

wine vinegar, two drachms; laudanum, No. 31, thirty drops; distilled water, eight ounces. Mix.

For inflammation of the eye, or eye-lids.

To be frequently applied by means of folds of fine old linen, over the affected eye or eyes. (See Inflammation of the Eye.)

No. 101. *Astringent Eye-water.*

Take of blue vitriol, one grain; dissolve in four ounces of distilled water, and add laudanum, No. 31, thirty drops.

To be dropped between the eyelids of the affected eye, or eyes, three or four times a day, for films or specks.

No. 102. *Discutient Lotion.*

Take of camphor, No. 28, two drachms: dissolve in rectified spirit of wine, four ounces; then add white wine vinegar, a pint.

For strains, bruises, and inflammation arising from accidents.

It may be conveniently applied in the form of a poultice, by adding a sufficient quantity of bran to make it of a proper consistence: when it becomes unpleasantly dry, a fresh quantity of the lotion should be poured over the external surface, so as to moisten it throughout.

No. 103. *Volatile Liniment.*

Take of spirit of hartshorn, No. 12, six drachms; olive oil, an ounce: shake well together.

This liniment is much used for chronic rheumatism, paralytic numbness and stiffness of joints. It is not so efficacious as the Cajeput Liniment, noticed page 10.

No. 104. *Liniments for Burns and Scalds.*

Take of linseed-oil and lime-water, of each four ounces; laudanum, No. 31, half an ounce. Mix.

To be applied by means of lint, or soft old linen: or

Take of expressed juice of potatoes, half a pint; spirit of wine, three ounces; liquid laudanum, half an ounce. Mix.

To be applied as above.

The efficacy of the latter liniment, in recent scalds and burns, has lately been much extolled by several able surgeons of London.

OINTMENTS.

OINTMENT is a composition of animal fat or fixed oil with other substances for external use; it differs from liniments and plasters in consistence only, being thicker than the latter and

thinner than the former. When they contain a large proportion of wax, and of a consistence between that of ointment and plaster, it is termed cerate. Ointments are not only used to defend wounds from the action of the cold air, but also to assuage pain and inflammation, to produce an healthy discharge from ulcers, and often, as an external dressing, to retain on the part such other applications as may be necessary to destroy fungus, &c. The following are the most useful:

No. 105. *Pile Ointment.*

Take of spermaceti ointment, No. 48, one ounce; Goulard's extract of lead, No. 30., fifteen drops; laudanum, No. 31, one drachm. Mix well together: or,

Take of flowers of zinc, one scruple; prepared calomel, one drachm; hog's lard *fresh*, six drachms.

This ointment is much recommended in the Monthly Gazette of Health for Piles, when attended with itching, or inflammation about the anus. (See Piles.)

No. 106. *Alterative Ointment.*

Take of nitrated quicksilver ointment, half an ounce; tar ointment, two drachms. Mix well together.

To be rubbed over the part affected every morning, for scald head, lepra, &c. (See Scald Head.)

No. 107. *Itch Ointment.*

Take of flowers of sulphur, No. 55, two ounces; hog's lard, four ounces; white hellebore powder, half an ounce; oil of lavender, sixty drops. Mix.

To be well rubbed on the parts affected every night, till the eruption ceases to be troublesome. (See Itch.)

PLASTERS.

No. 108. *Pectoral Plaster.*

Take of Burgundy pitch, two ounces; blistering plaster, No. 40, three drachms; camphor, No. 28, one drachm.

Melt the Burgundy pitch over a gentle heat, and when cooling, add the blistering salve, and lastly the camphor, in powder. To be spread on leather, and applied over the breast bone, in cases of asthma, difficulty of breathing, hooping-cough, and consumption of the lungs.

No. 109. *Corn Plaster.*

Take of hemlock plaster, with gum ammoniac, an ounce; camphor, one drachm. Mix, and spread on thin leather.

The application of this plaster will not only alleviate the pain attendant on corns, but often succeed in removing them. (See Corns.)

No. 110. *Discutient Plaster.*

Take of soap and hemlock plasters, of each three ounces; camphor, two drachms.

Melt the two plasters together, over a gentle heat, and afterwards add the camphor in powder. To be spread on leather, for rheumatic pains, indolent tumours, and chronic enlargement of joints.

CATAPLASMS OR POULTICES.

THE most frequent intention of a poultice is to soothe a part which is irritated, and to allay inflammation; but it may also be used to defend a sore from the action of the atmosphere, whilst a natural cure is going on, as is advised by the late Mr. Hunter.

In the common *bread poultice*, it has been the custom for a long period to employ milk; but as it is very liable to turn sour by the heat of the body, and possesses no advantage over water, the latter is now preferred by surgeons. Poultices are not only used to abate inflammation, or promote suppuration, but also for the purpose of stimulating the skin in cases of palsy, or for producing a determination of blood to the extremities, in cases of plethoric or inflammatory affections of the head.

Cataplasms or poultice is generally formed of vegetable substances, and applied of such a consistence as neither to adhere much nor run. They are also more useful when the intention is effected by the *perpetuity* of the heat or cold, which they communicate, for they retain these properties longer than any other kind of external application.

The following are the most useful :

No. 111. *Mustard Poultice.*

Take of flour of mustard, one part; oatmeal, three parts; vinegar, a sufficient quantity to form a poultice.

Boil the oatmeal and vinegar together, and afterwards sprinkle in the flour of mustard. To be applied warm.

No. 112. *Emollient Poultice.*

Take of pure water, half a pint; crumbs of white bread, a sufficiency to form a poultice; then add, Goulard's extract of lead, No. 30, forty drops. Mix well together.

Milk, so generally employed for making discutient poultices, by soon turning sour, from the heat of the body, becomes a bad external application for allaying inflammation.

No. 113. *Suppurative Poultice.*

Take of oatmeal, half a pound; strong beer grounds, a sufficiency to form a poultice; then add one drachm of camphor dissolved in half an ounce of spirit of turpentine. Mix well together.

To be applied warm, for the purpose of promoting the maturation of indolent tumours or boils.

DECOCTIONS.

DECOCTIONS differ from infusions only in the action of the water being assisted by a boiling heat. Although this increased heat may hasten the extraction of the medicinal virtue of many articles, it decomposes and dissipates all volatile matters. Boiling, therefore, is only necessary for the solution of principles that are not volatile or altered by heat. Decoctions should be made in vessels sufficiently large to prevent any risk of boiling over, and should be continued gently and without interruption.

The virtues of the productions of the vegetable kingdom employed in medicine, being imparted to water, either by boiling or by infusion, decoctions and infusions are much prescribed by practitioners in preference to tinctures. Of these preparations the following are most in use:

No. 114. *Decoction of Peruvian Bark.*

Take of Peruvian bark bruised, one ounce; water, a pint and a quarter.

Boil for ten minutes in a covered vessel, and strain the liquor while hot.

No. 115. *Decoction of White Hellebore Root.*

Take of white hellebore root bruised, one ounce; water one quart: to be boiled till the water is reduced to a pint; then strain, and add rectified spirit of wine, two ounces.

This decoction is employed as a lotion for the itch, which it frequently cures, and is exempt from the great objection made to sulphur, ointment, and mercury.

No. 116. *Decoction of Marsh-mallow Root.*

Take of marsh-mallow roots, bruised, three ounces; raisins, stoned, one ounce; water, three pints and a half.

Boil the ingredients in the water till it is reduced to two pints, then strain off the liquor, and let it stand for two or three hours to settle.

This decoction is chiefly used in cases of gravel, strangury, and cough. It is in no respect superior to the compound decoction of barley.

No. 117. *Decoction of Iceland Liverwort.*

Take of Iceland liverwort one ounce and a half; liquorice-root sliced, three drams; water, one quart.

After freeing the liverwort from the green moss, and washing it in cold water, boil it in the water to a pint and a half, and strain while warm.

No. 118. *Compound Decoction of Sarsaparilla.*

Take of the root of sarsaparilla, sliced and bruised, six ounces; bark of the root of sassafras, shavings of guaiac wood, liquorice-root, of each one ounce; mezereon, three drachms; distilled water, ten pints: macerate for six hours; then boil it down to five pints, adding towards the end of the boiling, the mezereon and sassafras, and strain the liquor for use.

This decoction is an improvement on the once highly celebrated *Lisbon Diet Drink*, which, for some time after its first introduction into Great Britain, was kept a secret. In the dose of four and six ounces three or four times a day, it has been found very serviceable in obstinate rheumatic affections, particularly when occasioned by the long use of mercury. It is also an excellent alterative in scrophula, schirrous affections of the womb, and cutaneous foulnesses.

INFUSIONS.

WHEN the medicinal virtues of any substances chiefly reside in an essential oil, or in a volatile matter, then extraction by infusion is preferred to decoction, as by the latter these active parts are evaporated. The process consists in pouring on the bruised substance in a proper vessel the liquor, either hot or cold, and afterwards covering it over. The liquor should be slightly agitated, and after standing the proper time, poured off or strained through fine linen. Maceration differs from infusion, in being continued a longer time, and can only be employed for substances which do not easily ferment or spoil. The following infusions are principally in use:

No. 119. *Infusion of Rhatany Root.*

Take of rhatany-root, one ounce; boiling water, one pint: macerate for twenty-four hours, and strain through fine cloth.

This elegant form contains the active principles of the rhatany root, and agrees much better with weak or delicate stomachs, than either the powder or decoction of it. It is given in the quantity of a small wine-glassful, to which it is customary to add a tea-spoonful of the compound tincture of cardamoms.

No. 120. *Bitter Infusion.*

Take of gentian root, sliced, one dram; dried Seville orange peel, one drachm and a half; fresh outer rind of lemon, half an ounce; boiling water, three quarters of a pint: macerate for an hour, and strain for use.

This infusion is in very common use as a stomachic medicine, in the quantity of three table-spoonsful two or three times a day.

No. 121. *Alkaline Bitter Infusion.*

Take of the bitter infusion, eight ounces; salt of wormwood twenty grains. Followed by a note: Mix.

This is to be taken in the same manner as the preceding infusion. In cases of indigestion, especially when acidity prevails in the stomach, this is a very excellent remedy.

No. 122. *Infusion of Valerian.*

Take of valerian root bruised, one ounce; infuse in three quarters of a pint of boiling water; when cold strain off the liquor, and add six drachms of compound spirit of lavender and three of spirit of sal volatile. A wine-glassful may be taken three or four times a day, in nervous and paralytic disorders.

No. 123. *Infusion of Rhubarb.*

Take of rhubarb-root, bruised, a quarter of an ounce; boiling water, a quarter of a pint; spirit of cinnamon, one ounce; macerate the rhubarb in a close vessel with the water for twelve hours, then add the spirit of cinnamon, and strain the liquor.

This is a very excellent, and perhaps the best preparation of rhubarb, when designed as a purgative, as the virtue of the rhubarb is more readily imparted to water than any other liquor. This dose is from two to four table-spoonsful.

No. 124. *Infusion of Roses.*

Take of red rose leaves, half an ounce: boiling water, two pints; vitriolic acid, half a drachm by weight; white sugar, one ounce; macerate the rose leaves with the water in an

earthen vessel (not glazed with lead) for four hours, then add the vitriolic acid, strain the liquor, and dissolve in it the sugar.

This is an excellent and efficacious medicine in haemorrhages, either from the nose, womb, stomach, or lungs, in the quantity of three table-spoonsful every three or four hours.

No. 125. *Infusion of Senna.*

Take of senna leaves, three drachms; boiling water, five ounces; coriander or caraway seeds, bruised, one drachm; macerate them for an hour in a covered vessel, and strain through fine cloth.

This is a very efficacious purge in the dose of three or four spoonsful. The caraway or coriander seeds not only cover the ill flavour of the senna, but also correct its griping quality. It should always be used fresh, as it is apt to spoil very quickly.

No. 126. *Infusion of Linseed.*

Take of linseed, one ounce; liquorice-root, two drachms; boiling water, two quarts; to be macerated for six hours, stirring the mixture with a spoon about every hour, in order that the mucilage of the seeds may be suspended.

This is a very useful beverage in cases of inflammation of the lungs, recent coughs, the measles, gravel, inflammation of the bladder, and strangury.

No. 127. *Infusion of Buchu Leaves.*

Take of Buchu leaves, half an ounce, boiling water one pint; pour the boiling water on the leaves, and keep the vessel well covered for three hours, then strain off the liquor, and keep it well corked.

To those readers who may be desirous to extend their knowledge of prescriptions, I recommend a small, but very valuable work, lately published under the title of "The new Medico-chirurgical Pharmacopœia."

The following TABLE will enable the Reader to proportion the Doses of Medicines to the Age of the Patient, and to administer the Medicines which are omitted in the preceding Part, on account of their being seldom used in Domestic Medicine.

CATALOGUE OF DRUGS,

The Doses specified in the columns are such as are usually administered; they should therefore be increased or diminished according to the STRENGTH and HABITS of the Patient, and the age, by the following rule:

Two-thirds of the dose, from the age of 14 to 16.—One-half, from 7 to 10.—One-third, from 4 to 6.—One-fourth, to one of 3 years.—One-eighth, to one of a year.

MEDICINES.	DOSES.	Adults.	Children, from 2 to 4 years.	Proper Vehicle, &c.	Effects, &c.	Diseases, proper for.
Ether	30 dps. to 1 drn.	-	-	cold water	-	asthma, cramp, & flatulence
Ethiop's mineral	15 to 30 grains	5 to 10 grains	honey, twice a day	-	-	scald head, cutan. foulness
Almonds, emulsion of	a wine glassful	1 to 2 drs. spfs.	every 2 or 3 hours	-	-	strangury, cough
oil of	1 to 3 drms.	30 dps. to 1 dm.	honey, ditto	-	-	ditto, ditto
Aloes Sotorraine	10 to 20 grains	-	-	in pills	-	obstinate costiveness
tincture of	3 to 6 drms.	1 to 2 drms.	-	-	-	ditto and worms
Alum powder	3 to 10 grains	-	-	water	-	flooding
Amber, rectified oil of	8 to 10 drops	1 to 3 drs	ditto, 3 times a day	-	-	hysteric fits, hooping cough
Ammoniac gum	10 to 15 grains	-	honey, twice a day	-	-	chronic cough, asthma, &c.
			in pills, ditto	-	-	expectorant

Ammoniac gum, milk of	3 table sps. ful. a dessert sp. ful	2 or 3 times a day	expectorant
Antimonial powder	from 3 to 5 grs.	1 to 3 grains	sudorific
wine (as an emetic)	2 to 4 drms.	1 to 3 drms.	emetic
wine (as an alterative)	12 to 20 drops	4 to 8 drops	sudorific
Aromatic confection	15 to 20 grains	4 to 8 grains	stomachic
species	5 to 10 grains	2 to 3 grains	antispasmodic
Assafoetida emulsion	4 to 8 drms.	2 tea sps. ful	ditto
tincture of	30 to 60 drops	8 to 12 drops	ditto
volat. spirit of	20 to 40 drops	4 to 8 drops	ditto, ditto, ditto
Balsam of copaiva	pill	10 to 15 grains	ditto, ditto
of Peru	20 to 40 drops	6 to 8 drops	in pills, twice a day
traumatic	3 to 10 drops	-	in honey, ditto
Bark, Peruvian, powder	20 to 60 grains	-	ditto, ditto
decoction of	3 to 4ta. sps. f.	-	ditto of sugar, ditto
essential salt of	5 to 10 grains	-	ditto of water, ditto
tincture of	2 to 4 drms.	2 to 3 grains	mint-wat. 4 or 6 times
ditto, Huxham's	2 to 4 drms.	Port wine, ditto	tonic
ditto, volatile	1 to 2 drms.	40 to 60 drops	ditto
Basilic powder	20 to 25 grains	ditto	ditto
Calomel	1 to 2 grains	10 to 20 drops	ditto
Camphor	2 to 4 grains	ditto, ditto	indigestion, heartburn
julep of	2 to 4ta. sps. f.	10 to 15 grains	vermifuge & cathartic
Canella alba, powder of	4 to 8 grains	Port wine, ditto	alternative
tincture of	2 to 3 drms.	40 to 60 drops	antispasmodic
Cardamoms, tincture of	2 to 3 drms.	ditto, ditto	ditto and febrifuge
comp. ditto	2 to 4 drms.	3 to 4 drms.	ditto
camomile tea, ditto	-	3 times a day	stimulant
	-	mint-wat. 3 times a day	stomachic
	-	water, ditto	ditto
	-	ditto, ditto	ditto
	-	camomile tea, ditto	ditto

MEDICINES.	DOSES.		Proper Vehicle, &c.	Effects, &c.	Diseases, proper for.
	Adults.	Children, from 2 to 4 years.			
Castor, Russian, powd. of — tincture of	5 to 10 grains 1 to 2 drms.	3 to 5 grains 15 to 30 drops	camphorated julep, do. ditto, ditto	antispasmodic ditto	convul. fits, nerv. irritability ditto, ditto
Castor oil	4 to 8 drms.	3 to 4 drms.	mint-water	purgative	colic, costiveness
— cold expressed	4 to 10 drms.	3 to 5 drms.	ditto	ditto	ditto, ditto
Cascarilla powder	10 to 20 grains	3 to 6 grains	ditto 3 times a day	stomachic	indigestion, weakness
— tincture of	1 to 3 drms.	20 to 30 drops	water, ditto	ditto	ditto, ditto
— volatile ditto	40 to 60 drops	—	ditto, ditto	ditto	gout, flatulence, heartburn
Catechu, tincture of	1 to 2 teasp.	10 to 20 drops	mint-water, ditto	astringent	chronic looseness, flooding
Chalk, prepared	10 to 15 grains	4 to 6 grains	ditto, 4 times a day	ditto	looseness, acidity
Camomile flowers, powder of — tincture of, &	10 to 20 grains	6 to 10 grains	mint-water, 2 or 3 times a day	stomachic & vermifuge	indigestion, worms, &c.
ginger	10 to 40 drops	—	water, 3 or 4 ti. a day	stomachic	gout, cramp in the stomach
Cinnamon powder	5 to 10 grains	2 to 4 grains	ditto, 3 times a day	ditto	indigestion, flatulence, &c.
— essence of	3 to 10 drops	1 drop	water	stimulant	flatulence, colicky pains
— tincture of	3 to 4 drms.	20 to 30 drops	ditto	astringent	looseness, &c.
Colombo powder	10 to 20 grains	3 to 5 grains	mint-water, 3 ti. a day	stomachic	indigestion, chron. looseness
— tincture of	1 to 3 drms.	10 to 20 drops	ditto, ditto	ditto	ditto, ditto
Crab's claws, prepared	15 to 20 grains	5 to 10 grains	do. every 3 or 4 hours	astringent	purging, dysentery, acidity
Cretaceous powder, with opium	10 to 20 grains	5 to 8 grains	ditto, ditto	ditto	obstinate purg. & dysentery
Contrayerva powder	20 to 40 grains	6 to 10 grains	water, ditto	sudorific	recent colds
— compound	30 to 40 grains	8 to 12 grains	mint-water, ditto	ditto and astringent	purging of children
Cream of tartar	1 to 4 drms.	20 to 30 grains	honey every morning	aperient and alterative	inflamm. erup. of the skin, &c.

Colocynth pill, comp.	4 to 20 grains	occasionally	active purgative	-
extract	ditto	ditto	ditto	costiveness
powder	4 to 6 grains	ditto	ditto	obstinate ditto, or colic
Dover's powder	10 to 15 grains	ditto	ditto	ditto
Elixir of vitriol	10 to 20 grains	3 to 6 grains	sudorific and andoyne rheumatism, recent colds, &c.	
Electuary, lenitive	10 to 12 drops	5 to 6 drops	stomachic	indigestion, flatulence,
Epsom salt	2 to 3 drms.	half to 1 drm.	-	-
Foxglove powder	4 to 8 drms.	2 to 3 drms.	gentle aperient	costiveness
tincture of	half to 3 grains	min. water	ditto	costive ditto
Gentian, tincture of	10 to 40 drops	ditto	[4 times a day violent purgative and	consumption of the lungs
extract of	1 to 2 drms.	decoct. of liverwt. 3 or sedative	purgative and dropsy	
Ginger powder	5 to 10 grains	12 to 30 drops	stomachic	indigestion, flatulence, &c.
lozenges of	10 to 20 grains	water, ditto	ditto	
tincture of	3 or 4	in a pill twice a day	stimulant	gout, indigestion, flatulence
Guaiac gum	1 to 2 drms.	water, ditto	ditto	flatulence
volatile tincture	5 to 10 grains	twice a day	ditto	ditto
Hartshorn, spirit of	1 to 3 drms.	water, ditto	ditto	chronic rheumatism, gout
burnt prepar.	20 to 40 drops	water, ditto	ditto	ditto, ditto
Hoffman's anod. liquor	30 to 40 drops	5 to 8 drops	stimulant	hysterics, convul. heartburn
Hemlock, powdered	2 to 3 grains	6 to 10 grains	astringent	purgung, acidity, asthma, hysterics
extract of	2 to 3 grains	min. water, ditto	antispasmodic	nerv fever, asthma, hysterics
Hiera piera	15 to 20 grains	water, ditto	sedative	hooping-cough, cancer
tincture of	2 to 4 drms.	min. water, ditto	ditto	ditto, ditto
Jalap, powder	20 to 30 grains	1 to 2 grains	purgative & stomachic	costiveness, flatulency
tincture of	2 to 4 drms.	ditto, or pill, ditto	ditto, ditto, & vermicu.	ditto, ditto, and worms
Ipecacuan powder	20 to 30 grains	5 to 10 grains	active purgative	costiveness
wine	4 to 8 drms.	water	emetic	
Iron. <i>See Steel.</i>		2 to 3 drms.	ditto	

MEDICINES.	DOSSES.	Adults.	Children, from 2 to 4 years.	Proper Vehicle, &c.	Effects, &c.	Diseases, proper for.
Kino gum, tincture of	2 to 3 drms.	15 to 20 drops mint-wat.	3 or 4 times	astringent		
Lavender, comp. spir. of	30 to 80 drops	10 to 20 drops water		cordial		
Logwood, decoction of	1 to 2 ta. sps. f.	3 or 4 ti. a day	[a day	astringent		
— extract of	1 to 20 grains	3 to 4 grains in cinnamon-wat.	3 ti. ditto			
Madder powder	30 to 60 grains	4 to 10 grains mint-wat.	2 or 3 times	deobstruent		
— extract of	10 to 20 grains	ditto, ditto		ditto, and tonic		
Magnesia	30 to 60 grains	5 to 10 grains mint-wat.		absorbent		
— calcined	20 to 40 grains	5 to 10 grains ditto				
Manna	3 to 6 drms.	1 to 2 drms.		gentle aperient		
Mercurial pill	6 to 12 grains			alternative		
Mercury, calcined	1 to 2 grains	quarter grain		ditto		
— with chalk	5 to 10 grains	3 to 4 grains honey, ditto				
Mistletoe powder	20 to 60 grains	8 to 12 grains mint-wat.	3 ti. a day	astringent		
Mithridate	15 to 20 grains	5 to 10 grains ditto, ditto		antispasmodic		
Musk	5 to 40 grains	2 to 5 grains ditto, ditto		alternative		
Muriatic acid	10 to 30 drops	6 to 10 drops water, twice a day		strengthening		
Myrrh powder	5 to 10 grains	2 to 4 grains mint-wat.	ditto	ditto		
— tincture of	1 to 2 drms.	10 to 15 drops water 2 or 3 ti. a day				
— emulsion	2 to 3 ta. sps. f.	2 to 3 drms.	2 or 3 times a day	ditto, and expectorant		
Natron, prepared	5 to 10 grains	2 to 3 grains mint-wat.	2 or 3 ti.	alternative		
— supercarbonated	5 to 10 grains	2 to 4 grains water, ditto		ditto		
Nitre powder	5 to 20 grains	2 to 4 grains barley-water, ditto		diuretic and febrifuge		
— sweet spirit of	20 to 60 drops	8 to 10 drops ditto, ditto		strangury, heat of urine, fever		
Nitric acid	12 to 30 drops	4 to 6 drops water		ditto, ditto		
				tonic		

Nutmegs, spirit of	-	4 to 6 drms.	water	carminative
Opiate confection	-	10 to 20 grains	bolus	ditto, and opiate
Opium, purified	-	1 to 2 grains	quarter grain pill	anodyne
Oyster shells, prepared	-	10 to 30 drops	3 to 5 drops	ditto
Paregoric elixir	-	10 to 20 grains	5 to 8 grains	absorbent & astringent
Peppermint, essence of	-	3 to 4 drms.	barley-water, ditto	purging, acid in stomach, &c.
Poppies, white, extr. of	-	3 to 6 drops	1 to 2 drops	cough, asthm. pain in the bow.
syrup of	-	5 to 10 grains	1 to 2 grains in a pill	colicky pain, flatulency, &c.
Quassia, tincture of	-	1 to 4 drms.	a tea-spoonful water	spasms, acute pain, cough
Rhatany powder	-	30 to 60 drops	10 to 12 drops ginger or tea, 2 or 3 times	ditto, ditto, ditto
tincture of	-	20 to 40 grains	mint-wat. every 2 hours tonic	indigestion, flatulency
comp. ditto	-	2 to 4 drms.	5 to 8 grains	ague, diabetes
aromatic ditto	-	2 to 4 drms.	30 to 40 drops	indig. relaxation, whites, &c.
Rhubarb powder	-	20 to 30 grains	ditto, 3 times a day	ditto, ditto, ditto
tincture of	-	4 to 6 drms.	30 to 40 drops	costiveness
bitter ditto	-	2 to 3 drms.	ditto, ditto	ditto, colic, &c.
lozenges with ginger	-	2 or 3	1	indigestion, flatulence, &c.
Rochelle salt	-	6 to 12 drms.	2 to 4 drms.	ditto, ditto
Roses, infusion of	-	1 to 2 ounces	3 to 4 drms.	costiveness
conserve of	-	1 to 2 drms.	1 drachm	indigestion, flooding, &c.
Saffron, tincture of	-	1 to 2 drms.	30 to 40 drops	costiveness
syrup of	-	2 to 3 drms.	water	lowness of spirits
Salt, Glauber's	-	6 to 12 drms.	1 to 2 drms.	costiveness, &c.
Epsom	-	6 to 8 drms.	mint-water	c. &c.
Cheltenham	-	4 to 8 drms.	ditto	costiveness, &c.
Polychrest	-	1 to 3 drms.	30 to 40 grains	cooling a
tasteless	-	6 to 12 drms.	ditto	gentle aper.
			2 to 3 drms.	in gruel or broth

MEDICINES.	DOSES.	Adults.	Children, from 2 to 4 years.	Proper Vehicle, &c.	Effects,	, proper for.
						sets
Salt of tartar	8 to 10 grains	1 to 4 grains	mint-water	-	alkaline	
of wormwood	8 to 10 grains	1 to 4 grains	ditto	-	ditto	
Sarsaparilla powder	20 to 60 grains	5 to 10 grains	ditto, 2 or 3 times a day	alterative	-	scrophula, &c.
comp. decoct.	3 to 4 ounces	1 to 2 ounces	3 or 4 times a day	ditto	-	ditto
Scammony powder	10 to 15 grains	4 to 5 grains	mint-water	-	strong purgative	obstinate costiveness
comp. ditto	15 to 30 grains	5 to 6 grains	ditto	-	ditto	ditto, worms, and dropsy
comp. with calomel	15 to 25 grains	5 to 6 grains	ditto	-	ditto	costiveness and worms
Senna, infusion of	2 to 3 ounces	3 to 4 drms.	honey	-	ditto, and vermifuge	ditto, and colic
tincture of	6 to 12 drms.	2 to 3 drms.	water	-	ditto	ditto, and piles
Soluble tartar	4 to 6 drms.	1 to 2 drms.	mint-water	-	ditto	
Spermaceti powder	1 drachm	20 to 30 grains	honey, 3 or 4 ti. a day	-	demulcent	recent cough
Spirit, Mindereus s.	half an ounce	1 drachm	mint-water	-	sudorific and cooling	ditto, inflam. fever, pleurisy
of vitriol. sweet.	20 to 40 drops	6 to 8 drops	ditto	-	antispasm. and carmin.	nervous debility, flatul. &c.
nitres sweet	15 to 30 drops	6 to 8 drops	barley-water	-	diuretic and febrifuge	strangury, gravel, fevers
sal ammoniac	15 to 30 drops	-	water	-	stimulant	hysteric and fainting fits
sal volatile	20 to 30 drops	6 drops	ditto	-	ditto	ditto, ditto
sal vol. foetid	30 to 40 drops	6 drops	ditto	-	ditto	ditto, ditto
Sponge, burnt	20 to 30 grains	10 to 15 grains	honey, twice a day	-	alterative	scrophula and wen
lozenges of	- 1 to 3 -	- 1 -	- twice a day -	-	ditto	wen
Squills, powder of	2 to 3 grains	-	- in a pill, twice a day -	-	-	expectorant & diuretic
oxymel of	2 to 4 drms.	1 drachm -	mint-water, ditto -	-	-	dropsy, chronic cough, asth.
tincture of	30 to 40 drops	6 to 10 drops	ditto, ditto -	-	-	ditto, ditto
lozenges of	- 3 to 6 -	- 1 to 2 -	- twice a day -	-	-	indigest. rickets, worms, &c.
Steel, muriated tinct. of	10 to 30 drops	3 to 6 drops	water, twice a day	-	-	tonic

Steel, wine of	3 to 6 drms.	1 to 2 drms.	water, twice a day	tonic
salt of	1 to 3 grains	half a grain	pill, ditto	ditto
rust of, prepared	10 to 40 grains	4 to 6 grains	honey, ditto	ditto
red sulphate of	3 to 12 drops	1 to 2 drops	water	ditto
Sulphur, flowers of	1 to 2 drms.	20 to 30 grains	honey, once a day	alternative and aperient
milk of	1 to 2 drms.	20 to 30 grains	ditto, ditto, piles, worms	cutane. foul. piles, worms
Syrup of white poppies	2 to 4 drms.	1 to 2 drms.	ditto, ditto, ditto	coughs, restless. irritat. fev.
buckthorn	2 to 4 drms.	2 to 4 drms.	anodyne	costiveness
ginger	2 to 3 drms.	1 tea-spoonful mint-water	strong cathartic	flatul. cramp in the stomach
Tartar, emetic	1 to 2 grains	1 drachm	carminative	costiveness, worms
Tin powder	20 to 40 grains	1 to $\frac{1}{2}$ grain	emetic	costiveness, worms
Tincture of aloes	3 to 6 drms.	10 to 15 grains	vermifuge	costiveness, worms
asafœtida	30 to 60 drops	water	purgative	costiveness, worms
benzoin	15 to 30 drops	ditto, twice a day	antispasmodic	costiveness, worms
cantharides	10 to 30 drops	ditto	stimulant	costiveness, worms
cardamoms	2 to 4 drms.	4 to 8 drops	diuretic	costiveness, worms
compound do.	2 to 4 drms.	6 to 8 drops	stomachic	costiveness, worms
cascarilla	1 to 3 drms.	half a drachm camomile-tea, ditto	ditto	costiveness, worms
catechu	1 to 2 drms.	1.5 to 20 drops mint-wat. 3 times a day	stomachic	costiveness, worms
columbo	1 to 2 drms.	ditto	stomachic	costiveness, worms
Peruvian bark	2 to 4 drms.	10 to 20 drops ditto	ditto	costiveness, worms
Huxham's do.	2 to 4 drms.	ditto	and cordial	costiveness, worms
volatile do.	1 to 2 drms.	30 to 40 drops ditto	ditto	costiveness, worms
iron, muriated	10 to 30 drops	10 to 20 drops water, ditto	tonic	costiveness, worms
of gentian	2 to 3 drms.	3 to 6 drops ditto	stomachic	costiveness, worms
guaracum	30 to 60 drops	12 to 30 drops mint-wat. 3 times a day	stimulant	costiveness, worms
ditto volatile	1 to 3 drms.	5 to 6 drops honey, twice a day	stimulant	costiveness, worms
jalap	2 to 4 drms.	water, ditto	brisk purgative	costiveness, worms
		1 drachm	mint-water	costiveness, worms

MEDICINES.	DOSES. Adults.	Proper Vehicle, &c.	Effects, &c.	
			Children, from 2 to 4 years.	
Tincture lavend. comp.	30 to 60 drops	15 to 20 drops water	cordial	-
myrrh	1 to 2 drms.	10 to 15 drops ditto, twice a day	strengthening	-
opium	10 to 30 drops	3 to 5 drops mint-water	anodyne	-
acetat. rhatany root	20 to 40 drops	6 to 8 drops ditto	ditto	-
ditto, comp.	2 to 4 drms.	30 to 40 drops ditto, 3 times a day	stomachic	-
Tobacco, extract of -	2 to 4 drms.	30 to 40 drops ditto, ditto	ditto, and cordial	-
Turpentine, Venice -	2 to 4 grains	1/2 to 1 grain	anodyne	-
spirit of -	10 to 15 grains	pill, twice a day	diuretic, &c.	-
Valerian powder	15 to 20 drops	honey, ditto	ditto	-
tincture of -	20 to 30 grains	ditto	anti-nervous	-
volatile do. -	1 to 3 drms.	ditto	ditto	-
Vitriol, acid elixir of	40 to 80 drops	10 to 30 drops water, thrice a day	ditto	-
Vitriolic acid, diluted	8 to 12 drops	8 to 12 drops ditto	ditto	-
Wormwood, conserve of	12 to 20 drops	4 to 6 drops camo. tea, twice a day	stomachic	-
salt of -	1 to 2 drms.	7 to 10 drops ditto	ditto	-
Wine, antimonial -	5 to 8 grains	1/2 to 1 dram.	ditto, and vermifuge	-
of ipecacuan -	2 to 4 drms.	1 to 4 grains mint-wat. twice a day	alkaline	-
rhubarb -	4 to 8 drms.	water	emetic	-
steel -	6 to 12 drms.	ditto	aperient	-
	3 to 6 drms.	mint-water	tonic	-
	1 to 2 drms.	ditto, twice a day	costiveness, indigestion	-
			debility, green-sickn.	-
			whites	-

LIME-WATER.

LIME-WATER is made in the following manner:—Take of quick-lime four ounces; pure water, six pints. Mix, and set them aside in a *covered earthen* vessel for one hour, then pour off the clear water, and keep it in bottles well corked for use.

When weakness of the stomach is accompanied with acidity and flatulency, this water affords an excellent auxiliary vehicle, in the quantity of a wine-glassful, for taking the compound tincture of ginger and camomile, No. 7., or the aromatic tincture of rhatany root.

Lime-water being capable of dissolving slime or mucus in the stomach and intestines, a redundancy of which affords a *nidus* or *lodgment* for worms, will considerably promote the efficacy of vermifuge medicines, in the dose of a tea-cupful two or three times a day. (See Basilic Powder.) Lime-water has been much celebrated as an alterative in scrophula and rickets; in the latter case it has not supported its character, while in the former it is still recommended. The good effects produced by it in such cases, probably arise from its neutralising acidity in the stomach, and promoting digestion. In cases of purging, where the object is more to restrain than entirely to check it, lime-water will answer better than the chalk or cretaceous mixture. It may be given in the following form:—

Take of lime-water, six ounces; compound tincture of cardamom seeds, half an ounce; liquid laudanum, thirty drops; white sugar, a quarter of an ounce: mix. Two or three table-spoonsful to be taken three or four times a day. The addition of a little lime-water to milk, makes it sit easy on weak stomachs; and with this admixture, in the proportion of a table-spoonful to half a pint, invalids have been able to take milk, after it has disagreed in every other form.

For weakly ricketty children, particularly when the intestines are irritable, and the bowels enlarged, lime-water is a very valuable medicine. (See Rickets.)

The late Dr. Hutchinson, of Dublin, was very partial to an infusion of the Peruvian bark in lime-water, in cases of general debility of the system from bad digestion, in advanced stages of scrophula and in rickets. Sir John Jarvis speaks in high terms of this combination, from the effects it produced in several cases of debility which had been considered by medical men of eminence hopeless. Dr. Hutchinson's prescription and directions for the use of the mixture are given in the 29th Number of the Monthly Gazette of Health.

BARLEY-WATER.

Directions for making. — Take of pearl barley, two ounces; water, five pints: first wash the barley with some cold water, then boil it a short time with half a pint of water to extract the colouring matter; throw this away, and put the barley thus purified into five pounds of boiling water, which is to be boiled down to one half, and then strained for use.

The compound barley-water, an excellent pectoral drink, is made in the following manner:

Take of barley-water, prepared as above, two pints; figs, sliced, two ounces; liquorice root, sliced and bruised, half an ounce; raisins, stoned, two ounces; distilled water, one pint; boil to two pints, and strain.

These liquors afford a very excellent diluting beverage in cases of acute disease, the former in inflammatory fevers, and the latter in inflammatory attacks of the chest, as pleurisy and inflammation of the lungs, recent coughs, &c. As their efficacy depends on their free use, it is important that they should be prepared so as to be elegant and agreeable to the palate; for this reason, the directions above have been inserted in the London Dispensatory, and the several circumstances which contribute to their elegance particularized, as the previous washing of the barley, and extraction of its colouring matter.

The addition of a little lemon or orange juice, or currant jelly, will take off the raw taste of barley-water, and, in most instances, promote its efficacy. However trivial medicines of this class may appear to be, they are of greater efficacy in the cure of acute diseases than many other elaborate preparations.

ALMOND EMULSION.

Directions for making. — Take of sweet almonds, six drachms; white sugar, two drachms; pure water, one pint: the almonds to be first blanched, by infusing them in boiling water, and afterwards peeling them. They are then to be well beat in a marble mortar, with the sugar, to a smooth pulp, when the water is to be added by degrees, and the rubbing continued till they are well blended, when the mixture should be passed through fine muslin for use. Great care should be taken that the almonds are free from any rancid taste.

Trifling as this emulsion may appear, it is the most valuable medicated beverage we possess, and in cases of strangury — inflammations of the lungs, bowels, kidneys, ureters, bladder, and urethra — pleurisy, recent coughs — and pulmonary consumption, is very superior to harley-water or linseed-tea. It may

be taken in the same manner as directed for the preceding article (Barley-water).

For the coughs of children, and irritation of the bowels, arising from teething, or obstructed perspiration, this emulsion, with the compound tragacanth powder, in the proportion of a drachm to a pint, is an excellent drink; and in the quantity of twelve ounces, or a pint, in the course of the day, will nearly supply the place both of medicine and diet; for it not only quiets the system, but also nourishes it.

The bitter almond has lately been employed by Dr. Sully, and other eminent practitioners, in preference to the sweet almond, on account of containing a small proportion of the Prussic acid, which considerably promotes its effects in allaying fever or inflammatory excitement of the nervous system.

RHATANY ROOT.

This root, the produce of Peru, has but lately been introduced into this country, although it has been long held in high estimation by the physicians in Spain, for its strengthening powers. In its sensible qualities, it approaches nearer to the Peruvian bark than any other vegetable production we are acquainted with; and by the testimonies of those physicians and surgeons who have given it a trial in this country, it appears by no means inferior in its medicinal properties, but, in many respects, very superior. It is more grateful to the palate and stomach than Peruvian bark, and hence many patients have been able to persevere in its use that could not take Peruvian bark in any form.

In the cure of intermittents it has not been known to fail; and, in several instances, it has proved successful after the Peruvian bark, in full doses, had produced no effect.

On account of the grateful astringency of this root, the wine manufacturers in Portugal have long used it for the purpose of enriching Port wine; and, from the quantity used by them, it is not improbable that the medicinal property of that wine is principally derived from it.

From the success that has attended the exhibition of this medicine in my own practice, I can confidently assert, that it is a most valuable stomachic medicine, and very superior to any of the class of tonics.

In diseases that require the use of a tonic medicine, the rhatany may be administered in the same manner as directed for the Peruvian bark; see No. 48.

Of this root, the same preparations are kept as of the Peruvian bark — viz. the powder, the extract, and the simple, aromatic, and compound tinctures; the directions for the use of which are given in the table of drugs, page 83.

ASARABACCA SNUFF.

This powder (the basis of which is the asarabacca herb) is a most excellent cephalic. A few grains snuffed up the nose produce a considerable discharge of mucus from the internal surface and sneezing, by which the most obstinate head-ache, tooth-ache, complaints of the eyes, (particularly gutta serena, and weakness of sight,) and paralytic and other complaints, attended with stupor or drowsiness, have been effectually cured. Geoffroy states, that after snuffing up four or five grains of this powder in an evening, he has found the discharge from the nose to continue for three days together; and this author observes, that it so effectually clears the head and rouses the energy of the brain, that it has cured palsy of the tongue, and deafness. It is more efficacious in these complaints than the powder sold under the name of cephalic snuff, which is a compound of herbs of little or no medicinal virtue.

CHELTENHAM SALT.

The salt when made by evaporating the Cheltenham water, as directed under the head of Epsom salt, page 10, contains all the medicinal virtues of the Spa, viz. iron, sulphates of soda, and magnesia, muriate of soda, &c. It is therefore, a good composition for a variety of diseases, especially those arising from bad digestion, which is the source of most of the chronic diseases to which mankind is subject. In cases of chronic enlargement of the liver, and obstruction or debility of this organ, this salt has proved very beneficial; in diseases of the skin, it is also a valuable medicine. Two drachms of this salt, dissolved in half a pint of water, will operate gently on the bowels. It is customary to continue this dose every morning for a week or fortnight, but the dose should be increased or diminished according to its effects. Two or three evacuations every day during its use is considered sufficient. One remarkable effect of this salt is, that so far from nauseating the stomach (the common effect of other aperient salts), the person, in a few minutes after taking it, feels a sense of hunger.

TINCTURE OF BUCHU LEAVES.

This tincture affords a valuable remedy for irritative affections of the bladder, urethra, rectum, and vagina. It is administered in the dose of two to three tea-spoonsful, three times a day, in a large wine-glassful or tea-cupful of the decoction of the marsh mallow root. An account of this tincture, and other preparations, with directions for their use, is given in a small pamphlet lately

published under the head of “an addition to the appendix to the Gazette of Health, on diseases of the bladder, rectum,” &c.

THE SATURATED TINCTURE OF CUBEBS.

This tincture, in the dose of one or two tea-spoonsful twice a day in a glass of barley-water, is an excellent remedy for fluor albus and gleet, when attended with indigestion and general debility of the muscular system. It is also a valuable medicine in cases of indigestion of elderly people or debauchees.

LETTUCE LOZENGE.

This combination of the inspissated milky juice of the lettuce, tolu, gum-arabic, &c. Dr. Andrew Duncan, professor of medicine at Edinburgh, highly extols as a remedy for catarhall and consumptive cough. One lozenge gradually dissolved in the mouth, and swallowed, powerfully allays the tickling sensation in the wind-pipe, which, in recent cold, occasions cough. It also promotes expectoration and perspiration, and is unquestionably a more pleasant and efficacious remedy for recent or winter cough, than the lozenges of tolu and ipecacuan.

OXYMEL OF THE HEDGE HYSSOP.

This preparation of the hedge hyssop has lately been found very beneficial in pulmonary consumption. The hedge hyssop possesses the peculiar property of allaying morbid irritation, quieting the circulation, promoting digestion, and keeping up a regular discharge from the bowels. The oxymel also facilitates expectoration and allays cough, and has effected more in consumption of the lungs, asthma, and winter cough, than any other medicine. (See treatment of Consumption and Asthma.)

ALCALINE TINCTURE OF FUMITORY.

The fumitory has been highly recommended by physicians of the first authority, as a powerful corrector of scrophulous and scorbutic habits, and also to remove obstructions of the liver and other viscera, and to deterge the skin. The late Professor Cullen, of Edinburgh, was very partial to this plant, and he states, that he found it very useful in many cases of indigestion, cutaneous foulness, inactivity of the liver, and particularly in clearing the skin in many instances of cutaneous affections resembling lepra. The leaves have a peculiar bitter saline taste, and the extract obtained from them is very bitter. This tincture

is made by macerating the leaves in weak brandy in a sand heat, with the vegetable alkali, and is so strongly impregnated with its virtues, that two tea-spoonsful is a sufficient dose, which should be taken twice a day in a glass of cold water, viz. two hours before dinner, and two hours before bed-time. It has been found to succeed better in those complaints of the stomach generally termed bilious, and foulness of the skin, than any other medicine, and more efficacious in removing obstructions of the liver than mercury. It is an excellent restorative in cases of debility or irritability of the nervous system, from the continued use of mercury.

OXYMEL OF COLCHICUM SEEDS.

This preparation has lately been found very beneficial in asthma and winter cough. The dose is from two tea-spoonsful to a dessert-spoonful, three times a day, in a wine-glass of barley-water. It effectually allays fever and irritation about the wind-pipe.

ALCALINE TINCTURE OF COLCHICUM SEEDS.

This tincture has been administered with great success in cases of acute rheumatism and gout, in the dose of a tea-spoonful once or twice a day. It was first introduced into practice by Dr. Williams, of Ipswich, whose favourable reports of its efficacy in allaying gouts and rheumatic pains, and at the same time improving the general health, have been confirmed by many practitioners of eminence in the Gazette of Health.

THE IGNITOR.

This little apparatus is particularly useful to light a candle in the night, in cases of sudden attack of disease or alarm. It is free from the unpleasant smell of phosphorous or brimstone when the best camphorated matches are used. To produce a flame, it is only necessary to dip the coloured end of one of the matches which accompany it in the bottle, and on quickly taking it out, the end will be found in a blaze, with which a candle may be lighted. This apparatus, which may be obtained from 10*d.* to 7*s. 6d.*, should be kept by every family. It is free from danger, and when the fluid (sulphuric acid) is exhausted, it may be replenished at the expense of a halfpenny. Those supplied with the patent bottle-stopper by Horsely and Cooper are the best, being instantly secured without a cork, which is not unfrequently lost or mislaid, to the detriment of whatever the acid may touch.

INDIAN ARROW ROOT.

The Indian arrow root has, of late years, been cultivated in considerable quantity in the East and West Indies. The following process for obtaining the fine powder, sold in this country, was communicated to me by a principal planter, for insertion in this work: "The roots, when a year old, are dug up, well washed in water, and beaten in a large wooden mortar, to a pulp. It is then thrown into a large tub of clean water, well stirred, and the fibrous part wrung out by the hands and thrown away. The milky liquor being passed through a lawn sieve or coarse cloth, is suffered to settle, and the clear water drained off. The white mass left at the bottom is again mixed with clean water, and strained; lastly, the mass is dried on sheets in the sun for use."

This powder, boiled in water, forms a very pleasant transparent jelly, very superior to that of sago or tapioca, and is much recommended as a nutritious diet for children, and invalids. The jelly is made in the following manner: to a dessert-spoonful of the powder, add as much cold water as will make it into a paste, then pour on half a pint of boiling water, stir it briskly and boil it a few minutes, when it will become a clear smooth jelly: a little sugar and sherry wine may be added for debilitated adults; but for infants, a drop or two of essence of caraway seeds or cinnamon is preferable, wine being very liable to become acid in the stomachs of infants, and to disorder the bowels. Fresh milk, either alone or diluted with water, may be substituted for the water. For very debilitated frames, and especially for ricketty children, this jelly, blended with an animal jelly, as that of the stag's horn, affords a more nutritious diet than arrow root alone, which may be done in the following manner: boil half an ounce of the true stag's horn* shavings in a pint of water for fifteen minutes, then strain, and add two dessert-spoonsful of arrow root powder (previously well mixed with a tea-cupful of water), stir them briskly together, and boil them for a few minutes. If the child should be much troubled with flatulency, from three to six drops of essence of caraway seeds, or a little grated nutmeg, may be added; but for adults, port wine or brandy will answer best.

* Great care should be taken that the true stag's or hart's horn shavings be employed, as the shavings of the bleached bones of the calf, on account of being whiter and much cheaper, are generally substituted for them. The latter do not impart so strong or wholesome a jelly as the stag's horn, the bones being nearly deprived of their glutinous property, by the process they undergo for the purpose of rendering them white.

By this diet, I am well persuaded many children have been reared, which had they been kept on the breast and the customary spoon-meat, would have died. One lady in particular that adopted it, has now two children living, in perfect good health, after having lost five, either by convulsions or bowel complaints.

It is very similar to mother's milk, and, no doubt, very superior to the milk of an unhealthy woman.

Through the extravagant high price of six shillings a pound, at which this powder is sold, its consumption has been chiefly confined to opulent families. In order, however, that no class of invalids should be precluded from its use, I have directed it to be retailed at *four shillings* a pound, at the Chemical and Medical Hall, 170, Piccadilly; and as it is received in the original packages, from one of the most respectable planters in the West Indies, I can take upon myself to say, that it is perfectly genuine, and equal, if not superior in quality, to that sold at double the price.

SASSAFRAS NUT.

The nut of the sassafras tree is very similar to the cocoa-nut, and in a ground state resembles chocolate. It also possesses the virtues of the sassafras bark and root, which have been long held in great estimation for correcting vitiated constitutions. The aromatic quality, which is very grateful to the palate, promotes digestion, and is at the same time an excellent remedy for flatulence; hence it becomes a valuable article of diet for a variety of invalids, and experience has proved that it recruits exhausted strength more rapidly than farinaceous substances or jellies. In cases of indigestion, chronic eruptions of the skin, scrophula, asthma, consumption of the lungs, chronic rheumatism, and gout, it affords a very excellent breakfast and supper.

PREPARED CHARCOAL OF THE ARECA NUT.

The properties of charcoal, as a dentifrice, were noticed in the first edition of this work, under the title of *carbonic powder*; since which it has been very generally employed for the purpose of cleaning the teeth.

Well calcined charcoal, reduced to a fine powder, is no doubt a very innocent and excellent tooth-powder. It gives the enamel a fine, healthy, white appearance, destroys the offensive effluvia arising from carious teeth, and will not only prevent caries of the enamel, but even arrest its progress after

it has taken place; and it is worthy of remark, that people who have been great sufferers by tooth-ache, have not experienced the least relapse after the regular use of this powder. It is likewise very efficacious in destroying unpleasant tastes in the mouth, and for cleaning the tongue in cases of putrid fever, sore-throat, and indigestion. The charcoal, prepared from the Areca nut, has been held in high estimation among the Indians; and Dr. Lind, late of Bengal, states, that by its use he has preserved all his teeth perfectly sound, although now arrived to the age of eighty: and several very respectable gentlemen who have resided many years in the East Indies, have assured me, that it is esteemed a great preserver of the teeth, and a certain preventive against the tooth-ache. The charcoal of the Areca nut (generally termed Betel nut in this country) certainly affords a more solid powder than that of wood, and therefore, for the purpose of cleaning the teeth is more efficacious. It also possesses an alkalescency, which renders the matter that adheres to the teeth more readily removed by the brush; — a property from which the common charcoal is entirely exempt.

On the very respectable authority of Dr. Lind, I was induced to adopt the levigated Areca charcoal, and, from long experience, I have no hesitation in recommending it in preference to that of wood.

It is become necessary to caution the public against the tooth powders recommended by many dentists, and particularly those sold by perfumers, which being composed of the most destructive minerals, may, for a short time, render the teeth white, but will ultimately prove very injurious by their mechanical action on the enamel. Indeed, such is the mischief that uniformly follows their use, that the introduction of the Areca charcoal into this country may be considered a great *desideratum*, and, as soon as its valuable properties are known, it will no doubt be generally adopted.

The tincture of rhatany root, mixed with a little water, forms a very excellent astringent lotion for the teeth, and should always accompany the use of the prepared charcoal, or any other dentifrice. This tincture, from its peculiar astringent power, braces and strengthens the gums, and its repeated use has often succeeded in fastening loose teeth. (See TOOTH-ACHE.)

Having examined the tooth-powder industriously advertised by several druggists, under the name of *Prepared Charcoal*, I can assert that I have not found any to be genuine charcoal-powder, but a composition of burnt oyster-shells, which in no respect resembles charcoal, and as a dentifrice must assuredly prove very hurtful. The spurious charcoal-powder may be

known by being of a grey colour, whereas true charcoal is perfectly black.

Under the head of *Tooth-ache*, some further directions are given respecting the management of the teeth, and the principal causes of caries and tartareous concretions.

THE MEANS OF FUMIGATING INFECTED CHAMBERS, &c. AND PREVENTING THE PROGRESS OF CONTAGIOUS FEVERS.

For the important purpose of purifying the contaminated air of the wards and rooms of patients afflicted with contagious fevers, various means have been employed from the earliest period of medicine.* The acetic acid (vinegar) and different mineral acids have of late years been much used for this purpose, and ample experience has proved them to be efficacious. The late Dr. Johnstone, of Worcester, in a dissertation on the malignant epidemical fever which prevailed in Kidderminster in 1756, asserts, that he found vinegar, sprinkled about the room when the weather was warm, and boiled with myrrh or camphor, effectually to correct putrid effluvia. "The steams arising from the latter," the Doctor asserts, "preserve the air from putrefaction, will insinuate themselves by the absorbent vessels of the lungs into the blood-vessels, and greatly assist in impeding the progress of putrefaction in the fluids," &c. The camphorated acetic acid, No. 3, 8, evaporated in a saucer over the blaze of a candle, is not only more commodious, but, from the volatile nature and pungency of the acid, will have a more rapid action on contagious or putrid effluvia.

Citizen Guyton Morveau recommends the muriatic gas, which he found particularly efficacious in correcting the putrefaction of dead animal matter in the church of Dijon. For fumigating uninhabited rooms, the muriatic acid gas may answer much better than the steams of vinegar or nitrous gas; but as it considerably irritates the lungs, and is unfit for respiration, it is not proper for the apartments of the sick. Dr. Johnstone also recommends this gas in a slight degree; but on account of its being unpleasant for respiration, he preferred the employment of vinegar.†

* Hippocrates, upwards of two thousand years ago, directed herbs and nitre to be boiled in vinegar in the chambers of the sick.

† The evaporation of vinegar in the rooms of the sick was a common practice in this country long anterior to Dr. Johnstone's publication: but it appears that the doctor was the first who employed the muriatic acid gas, although citizen Guyton Morveau, in his publication, claims the priority of

For disengaging the muriatic acid gas, citizen Guyton Morveau gives the following directions: "Put into the middle of the place which is to be purified, a chafing-dish, on which a pan half filled with sand and ashes is to be laid, on which a glass or earthen bowl, containing common salt, is to be placed; the sand being heated, pour on the salt, at once, vitriolic acid, and retire immediately—the windows and doors should be exactly shut. The proportion for a high and spacious ward, containing twenty beds, is, of common salt, nine ounces six drachms, and of vitriolic acid, seven ounces and seven drachms (by weight), which quantities are to be augmented or diminished according to the space of the room to be purified." Inhabited rooms this author recommends to be fumigated with the oxygenated muriatic acid, which is made by adding black oxide of manganese, in the following proportion:—Take of common salt, two parts; black oxide of manganese, one part; vitriolic acid, two parts; after rubbing the salt and manganese together in a glass mortar, place the mixture in an open glass vessel in the infected chamber, and pour on it the vitriolic acid. The fumes are immediately exhaled and diffused through the atmosphere of the room, and thereby effectually destroy putrid particles or contagious matter.

The nitrous acid gas is preferred by Dr. James Carmichael Smyth, who directs it to be used in the following manner:—"Take fine sand, and heat it in an iron ladle or shovel; when made very hot, fill with it an earthen quart pipkin, in which immerse a common tea cup, containing about half an ounce of vitriolic acid, to which, when it has acquired a small degree of heat, gradually add the same quantity of purified nitre in powder; stir the mixture with a slip of glass until the vapour arise in considerable quantity. The pipkin is then to be carried about the room (the doors, windows, &c. being closely shut), occasionally putting it under the bed, and in every corner and place where any foul air may be supposed to lodge; the fumigation to be continued till the room be filled with the vapour, which will appear like a thick haze."

In very malignant cases, it should be repeated twice a day; but otherwise, once will be sufficient; which should be regularly continued some days after the contagion is supposed to be destroyed. If the vapour irritate the lungs, so as to excite much cough, fresh air should be admitted, by opening the doors or windows of the room. After a few repetitions, this effect

the discovery. Citizen Guyton, however, did not use it till the year 1775; whereas it is recommended by Dr. Johnstone in his Dissertation, published in 1758.

will not, however, be produced; but, on the contrary, it will be found agreeable and refreshing. It should be particularly observed that no wood nor metal be employed in the process, otherwise *dangerous* and *offensive* vapours will be disengaged with the nitrous. Proper attention should likewise be paid to cleanliness in the apartments, clothes, and bedding.

The nitrous vapours, so disengaged, not only destroy the subtle infectious particles arising from putrid bodies, or from persons labouring under contagious fevers, as effectually as the muriatic gas recommended by citizen Guyton Morveau, but also communicate to the atmosphere an animating principle, which, by respiration, enters the system in such quantity, as evidently to invigorate the vital powers and cheer the mind; and thus they prove more beneficial than medical men generally suppose. The oxygenated muriatic acid of citizen Guyton has a similar effect, and was preferred by Mr. Cruickshank, on the supposition of its being more efficacious, as well as more pleasant to respire.

In order more effectually to resist the effects, and check the progress of infection, the following rules should be particularly enforced: —

1st, None should be permitted to visit patients labouring under infectious disorders, but those who are impelled by the calls of duty, affection, or necessary business.

2dly, None should be admitted *fasting* or *before breakfast*. The afternoon is the fittest part of the day for visits of this kind: or if they must be made in the morning, a glass or two of Port or Madeira, or a dose of compound tincture of bark, or rhatany root, ought previously to be drunk. A handkerchief, sprinkled with camphorated acetic acid, held occasionally to the nose, is also an useful precaution to those who visit infected persons. Smoking may also be of some service.

3dly, The utmost attention to *cleanliness* in *every thing* relative to the patient, should be observed. This is particularly requisite in camps, hospitals, poor-houses, gaols, &c. The frequent change of linen, and the *immediate removal* of every thing of an *offensive nature* are absolutely necessary.

4thly, The free admission of *pure atmospheric air** is indispensably requisite. The absolute necessity for this caution is

* The atmosphere is not, as was formerly supposed, a simple elementary body, but consists of two very different kinds of air, the one eminently conducive to the purposes of life, named oxygen; the other, which is nearly three-fourths of the whole, destructive of life, and called azote. On a due admixture of these two component parts of the atmosphere depends, not only respiration, but the colour and circulation of the blood, and all the phenomena of life.

strikingly evinced by what is recorded to have happened at Philadelphia, in the yellow fever of 1793. Of 2000 persons who were removed to tents erected in the fields, only 17 died in 25 days; whilst out of an equal number in the city, 178 perished.

5thly, Attention ought to be paid to the *temperature* of the air. *Extreme heat* might increase the tendency to putrefaction, which exists in a greater or lesser degree in most infectious disorders. *Extreme cold*, on the other hand, is not only very ungrateful to the feelings of the sick, but, by its debilitating property, may increase the virulence, and extend the ravages of contagion.

6thly, When a person dies of an infectious distemper, the body should be removed, *as soon as possible*, into a room *appropriated to that use*; it should be then wrapped in a pitched cloth, and the friends of the deceased desired to proceed to interment so soon as is consistent with propriety. Early burial was so much enforced during the plague at Marseilles, that Dr. Arbuthnot, in his Treatise on Air, asserts, that it was clearly ascertained many were buried alive; a body apparently dead should not, therefore, be too hastily consigned to the grave, the natural heat and pure air of the earth being very powerful agents in restoring the vital functions, in case of their suspension.

7thly, As infection is liable to be communicated by clothes which have been worn by the sick, such clothes ought not to be used, until they have been well washed, and thoroughly fumigated.

8thly, After the recovery or decease of a person labouring under an infectious fever, the roof or walls of the apartment in which he lay ought to be white-washed, the windows kept open during the day, and flowers, or herbs, immersed in water, placed in such parts of the room as are more immediately exposed to the action of the sun's rays upon them.*

* Whilst Dr. Priestley was engaged in a series of experiments to enable him to purify contaminated air, he discovered that vegetables answered this purpose most effectually. The experiment by which he illustrates the fact is this:—Having rendered a quantity of air very noxious, by mice breathing and dying in it, he divided it into two receivers inverted in water, introducing a sprig of mint into one of them, and keeping the other receiver, with the contaminated air in it, alone. He found, about eight or nine days after, that the air of the receiver into which he had introduced the sprig of mint had become respirable; for a mouse lived very well in this, but died immediately upon being introduced into the other receiver, containing the contaminated air alone. All strongly scented objects vitiate the air; and it has been satisfactorily proved by the experiments of Ingenhouz, Priestley, and others, that most plants emit

9thly, The establishment of fever wards, and houses of recovery, for the reception of persons attacked with infectious fevers, are charities which reflect immortal honour on their founders, and are better adapted to check the ravages and prevent the recurrence of these maladies in large towns, than perhaps any other plan which has hitherto been devised.

It is worthy remark, that many very respectable practitioners in the West Indies, as well as on the continent of America, deny that the fevers which at times have proved so destructive in those places were contagious; and Dr. John Vaughan, after investigating the cause and nature of the fever which prevailed with such violence in the borough of Wilmington, in North America, in the year 1802, concludes, contrary to the general opinion, that the disease was not imported, that it was not contagious, but that it depended upon some noxious state of the atmosphere, owing to certain putrid effluvia, which formed a constituent part of heavy fogs, that used to collect in the evening, and be suspended over the flats during the night. Hence we find that fevers, which are attributed to contagion, will make an equally rapid progress where guards have been placed, as they have been in Russia, and where high walls have been built to prevent communication; and some instances have happened of a great part of Europe, and some of Asia, Africa, and America, suffering from similar complaints nearly at the same time, from a very widely spreading noxious effluvium in the air. Dr. Desgenette, physician to the French army in Egypt, and M. Assalini and Larry, having endeavoured to communicate the plague by infection without effect, were led to believe that the plague is not contagious; but such experiments are by no means satisfactory; for in all cases of infection, a certain state of constitution must exist to render the person susceptible of its action; hence those whose systems are perfectly healthy, or, as is technically termed, *not predisposed* to receive the contagion, may expose themselves to its influence with impunity.

The partial appearances of this fever, and its frequent occurrence at the same places, have induced some practitioners to suppose that it was produced by noxious vapours, or putrid miasmata disengaged from the earth. The French historian

during the night a large proportion of azotic or irrespirable gas: it is on this account that flowers suffered to remain all night in a bed room, sometimes prove very deleterious in their effects. Nor is it less unhealthy to sleep in a room where a quantity of green fruit is constantly kept, as from its fragrance a portion of inflammable matter transpires, which soon impregnates the air.

Mezeray, as quoted by the Hon. Mr. Boyle, states, "that a vapour broke out of the earth in the kingdom of Cathay, that caused fevers more fatal and universal than were ever before known, and that it consumed every thing before it, even the trees and stones." Hoffman, Sennertus, and many of the most respectable ancient physicians, have very justly observed, that the *fear** of contagion, under a *bad constitution of the air*, has been more productive of disease than the air itself, and it is to be feared, has been the cause of many unfortunate sufferers being lost for want of proper attention, and some even being buried alive.

Whatever the original source or nature of the contagion may be, after it enters the circulation, which is probably by respiration, like other specific poisons, it evidently generates a quantity in the system, which, by passing off by perspiration, contaminates the air; the means, therefore, recommended for purifying the air and ventilating the chamber, must considerably tend not only to check its progress, but also to diminish its malignancy. (See **TYPHUS FEVER.**)

THE MEANS OF COUNTERACTING THE EFFECTS OF THE DIFFERENT POISONS ON THE HUMAN BODY.

Of poisons there are three classes, viz. *mineral*, *vegetable*, and *animal*.

OF THE MINERAL POISONS.

Arsenic is the most powerful; and therefore, for the purpose of destroying life, generally employed. The solutions of mercury, copper, lead, and antimony, in different acids, are likewise, in no great quantity, active poisons. To counteract the effects of any of the mineral poisons taken into the stomach, the liver of sulphur is an efficacious medicine. It may be

* A remarkable instance of the influence of the depressing passions, in this respect, has been lately noticed by Captain Philip Beaver, in a work entitled "African Memoranda." This intelligent author, speaking of the disease which prevailed among his men at Bulama, observes, "It is melancholy, no doubt, but many have absolutely died through fear. More courage, and greater exertions, I firmly believe, would have saved many of them; but a lowness of spirits, a general despondency, seems to possess every body. When taken ill, they lie down, and say they know they shall die; and, what is very remarkable, I have never yet known one recover after having, in such a manner, given himself up."

administered in the following manner: Dissolve a large table-spoonful of the liver of sulphur in a pint of warm water, and give the patient two table-spoonsful of the solution as soon as possible, and repeat it every ten or fifteen minutes for three or four doses, or as occasion may require. If this preparation cannot be readily procured, a tea-spoonful of sulphur, with eight or ten grains of salt of wormwood, will afford the best substitute.

Either the liver of sulphur, or salt of wormwood, by uniting with the acid of corrosive sublimate of mercury and the metallic salts, decomposes them, and precipitates the metal in the form of a calx, nearly or wholly inactive. It will likewise be proper to dilute plentifully with warm water, and to excite vomiting, by giving, with the first dose of either of the above medicines, or as soon after as possible, two scruples of ipecacuan powder, and to hasten its operation by irritating the fauces with the finger or a feather. Oil and milk may likewise be given with a view to blunt its acrimony. If neither liver of sulphur nor salt of wormwood can be readily procured, ten grains of pearl or pot-ash may be employed, or half a table-spoonful of soap flees given in a little water or a strong solution of soap in water.*

In the 89th and 90th numbers of the Gazette of Health, two interesting cases of attempts to destroy life by taking arsenic, are inserted, in which the medical attendants attribute the escape of the patients to dry vomiting. It appears by the statement of Mr. Buchannon, that his patients refusing to take any liquid, continued to vomit up the powdered arsenic undissolved with the slime of the stomach. Had liquids been administered to facilitate vomiting, he concludes, that, by dissolving the arsenic, it would have proved fatal, the patient having taken upwards of half an ounce of the poison.

An eminent physician in Germany has lately published the results of many experiments he made with powdered charcoal, by which it appears that, by administering a table-spoonful of the powder (mixed with water) soon after a quantity of arsenic, no disorder of the stomach ensued; and so satisfied was he that charcoal possesses the power of rendering arsenic inert, that he has

* When the patient refuses to give any information respecting the nature of the poison he has taken, it will be advisable to treat it as belonging to the mineral class, in order to avoid a loss of time, which, with the emetic dose of ipecacuan, will also succeed in expelling it; should it be of the vegetable kind.

made many bold experiments on himself with impunity. The dose of charcoal should be repeated every ten or fifteen minutes, as long as any pain exists in the stomach. It acts by de-oxydising the poison.

It is strange that the decomposing remedies should not have been noticed by Tissot, Buchan, and others, who have written on the subject, professedly for public instruction. Dr. Buchan merely recommends oily drinks to be taken, and observes, if they fail to produce vomiting, "half a drachm of powder of ipecacuan must be given, or a few spoonfuls of the oxymel or vinegar of squills may be mixed with the water he drinks." The two latter articles no medical man, at least of any chemical knowledge, would think of employing, being more likely to increase than diminish the virulence of the poison.

When corrosive sublimate of mercury is taken in too great a quantity, Dr. Orfila, of Paris, advises the white of eggs to be largely administered. On the first appearance of the symptoms, he observes the patient should swallow several glasses of the white of eggs mixed with water. If the poison be arsenic, the first object, he contends, is to promote vomiting: for this purpose, a large quantity of the decoction of linseed or milk should be taken, and vomiting excited by irritating the top of the gullet by a feather or finger. An ingenious article on this important subject, from Dr. Orfila, is published in the seventh number of the *Monthly Gazette of Health*.

If some hours have elapsed since the poison was swallowed, or if the patient has vomited frequently, eight or twelve ounces of blood should be taken from a vein, with the view of diminishing the inflammatory excitement of the stomach, or to prevent inflammation. It often happens, that before medical assistance can be procured, that the patient has cleared the stomach of the poison by frequent vomiting. In such case, the object of practice is to remove its effect (inflammation) by copious bleeding and a demulcent drink, as fresh milk with a few drops of laudanum. It will likewise be prudent to administer the charcoal powder to de-oxydise mineral poison, in case any should remain in the stomach. By exhibiting the alkaline remedies, when no poison remains in the stomach, much mischief is frequently done by aggravating its inflammatory effects.

With respect, then, to mineral poisons, there is a rational ground for hope, as by proper management they may be decomposed, their effects counteracted, and the danger resulting from their exhibition guarded against and prevented; but the

VEGETABLE POISONS

Do not admit of such a remedy, there being no means of rendering them inert by decomposition. Their speedy evacuation should, therefore, be attempted by the most powerful emetics, as ten or fifteen grains of white vitriol, or four grains of emetic tartar, No. 35, with thirty ipecacuan powder, No. 23, in a little water.

The sooner the emetic is administered, the greater is the probability of success; for such is the narcotic property of vegetable poisons, that, in a short time, they will so far destroy the sensibility of the stomach, as to render it incapable of vomiting; their evacuation cannot then be effected, and their continuance will be inevitably fatal. If an emetic medicine cannot be readily procured, attempts should be made to excite vomiting, by forcing a quantity of warm water into the stomach, and afterwards by irritating the fauces with a finger or a feather till the contents of the stomach are thrown up, which will often prove effectual. The vegetable acids, being considered by many practitioners to possess anti-narcotic powers, may likewise be administered; vinegar being the most handy, and no doubt as efficacious as any, may be administered in the quantity of three or four table-spoonsful. The patient should likewise be made to drink plentifully of warm water, or a strong infusion of coffee, the latter of which some experienced practitioners assert to be the most efficacious remedy that can be employed for the restoration of the sensibility of the stomach, and the removal of the spasms induced by vegetable poisons.

If the poison be an over dose of opium, the patient should be prevented from going to sleep, by shaking him or keeping him in motion, and applying some pungent smelling salts to the nostrils, while the above means are employed for its evacuation from the stomach. The propriety of bleeding, recommended by Dr. Buchan in such cases, is much to be doubted; no advantage can be derived from such a practice, but, as tending to diminish the powers of life, it would probably accelerate its fatal effects.

Since the oxalic acid (sold under the name of acid of sugar) has been generally employed as a substitute for the muriatic acid to clean boot-tops, many people have been poisoned by taking it for Epsom salts, which it greatly resembles. The best means of counteracting its poisonous effects on the stomach, is to take freely of a solution of salt of wormwood, made by dissolving four drachms in a pint of water, and to excite vomiting by irritating

the upper part of the gullet with a feather or finger. In case the salt of wormwood cannot be obtained, magnesia or soap lees may be employed.

OF ANIMAL POISONS.

The effects of poison introduced by the sting of insects may be prevented, by applying immediately a little vinegar and spirit of wine, by means of some folds of old linen.

From the bite of a mad animal arises the most dreadful disease known in this country, termed *Hydrophobia**; for the prevention and cure of which a great variety of nostrums have been held forth to the public; but there is no satisfactory instance of any of them having proved useful; and no means yet suggested can be depended upon, but the complete removal of the injured part by the knife or actual cautery. In this, all medical writers on the subject agree, with this difference, that some contend it can only be effectual when it is done in a few hours; while others are of opinion, that the poisonous matter is *not immediately* absorbed into the system, and that the measures for destroying the part may be practised with success many days after the bite.

Sea-bathing has been employed from time immemorial as a preventive; and lately mercury by many eminent practitioners; but there are no well-attested cases in which they have been attended with advantage, so that little or no dependence can be placed on them. The complete cutting out of the part to which the teeth have been applied is unquestionably the most to be relied on; and as hydrophobia, when once it has taken place, is so generally fatal, and the period for absorption uncertain, the sooner the excision of the part is accomplished, the greater will be the chance of success. Till the operation can be done, the part should be constantly washed; and even after its removal, a discharge should be kept up from the surface of the wound, by stimulating applications of basilicon ointment, with red precipitate of mercury, or spirit of turpentine.

The preventive medicine, so much extolled by Dr. Mead, is composed of ash-coloured liverwort, powdered, half an ounce;

* Dr. Berguillon, a French physician of repute, has lately published a treatise, in which he maintains, with great ingenuity, that this disease is produced, *solely* by the power of imagination, without the intervention of any distinct material poison. This opinion has since been broached by several practitioners in England; but if the disease be communicated from one dog to another, or from a dog to a pig, a horse, or any other animal, of which there cannot be a doubt, surely it cannot be said to be imaginary. — “Est natura hominum novitatis avida.”

black pepper, powdered, quarter of an ounce; to be mixed well together, and divided into four doses, one to be taken every morning fasting, for four mornings successively, in half an English pint of cow's milk (warm).

" After these four doses are taken (the doctor observes), the patient must go into the cold bath, or a cold spring or river, every morning fasting, for a month; he must be dipped all over, but not stay in (with his head above water) longer than half a minute, if the water be very cold; after this he must go in for three times a week, for a fortnight longer. The person must be bled before he uses the medicine."

In the space of thirty years, the doctor asserts, that he had an opportunity of giving this plan a trial no less than *one thousand times*, with (as he observes) *uniform success!* No experienced practitioner, however, I am persuaded, will attribute to it any antidotal power whatever, or think of employing it to the exclusion of more plausible remedies. If mercury be applied, it must be used both internally and externally, so as to excite salivation as soon as possible. Two drachms of the strongest mercurial ointment at least should be rubbed into the inside of the thighs and the part surrounding the wound, two or three times a day, and a pill composed of three grains of calomel, with a grain of opium, taken twice a day. If symptoms of hydrophobia* should occur, a vein should be opened in the arm, and the blood suffered to flow till the patient faints. This practice has, in some instances, succeeded, and is by far the most rational. If the patient has the power of swallowing, two grains of the sugar of lead, in a little water, may be given every two hours, or made into a pill with conserve of roses. (See *Hydrophobia*.)

By a communication from Dr. Spalding, an eminent physician of New York, (in the 49th number of the *Gazette of Health*,) it appears that the scull-cap plant has been administered in many parts of America with the most complete success, both as a preventive and cure. The testimonies there related in favour of this remedy are so numerous and respectable, as to induce one to suppose that a specific has at length been discovered for this most distressing malady.

* It is thus named, because the person dreads the sight or noise of falling water.

OF SUSPENDED ANIMATION, AND THE MEANS OF RECOVERY.

The suspension of the vital powers, produced by immersion in water, called drowning, and that by strangulation and suffocation by noxious vapours* and lightning, are very similar, and require the same resuscitative means. As in poisons, so in cases of suspended animation, what is necessary to be done should be done *quickly*; therefore, on the *first alarm* of any person being drowned or suffocated, while the body is searching for, or conveying to the nearest house, the following articles should be got ready:—*wiz. warm blankets, flannels, a large furnace of warm water, heated bricks, a pair of bellows, warming-pan, sal volatile, oyster pipes, and an electrifying machine.* In conveying the body to the house, the head and chest should be placed rather in a reclining position, that in case any water should have got into the lungs it may run out at the mouth, which the slight agitation occasioned by carrying the body will accelerate. The head, however, should not be kept much lower than the shoulders, or even in a reclining position, many minutes, otherwise the blood will gravitate in such quantity into the vessels of the head, as very considerably to impede the restoration of life, by compressing the brain.

The body being placed on warm blankets, in a *spacious* room with a good fire, and only five or six attendants, the *first* at-

* The unhappy incidents that occur on the opening of subterraneous places such as tombs, cellars, vaults, &c.—are produced by the quantity of fixed air contained in them, which being unfit for respiration, occasions immediate suffocation. The air is considerably heavier than common air; hence it occupies the lowest situations, such as wells, caverns, &c. From the famous lake of Averno, where Virgil placed the entrance of hell, this air is exhaled in so large a quantity, that birds cannot fly over it with impunity. Before a person enters a vault or cell that has been for some time shut up, or descends a well, the experiment should be made whether a candle will burn in the atmosphere of the place; for ignition and respiration are so very similar, that the same air that will support the one will also the other. The best method of rendering the air of such places fit for respiration, is to explode in it some gunpowder, in proportion to the size of the place; for this purpose, the fire-works named bomb and cracker will answer best, as they may be thrown to the bottom of the well, or end of the vault, &c. To purify the air of the vaults at Dijon, M. Morveau threw in bottles of muriatic acid, with such force that the bottles might be broke, and the acid spilt in the place: but this experiment was made to correct putrid effluvia, and not fixed air. Whether the air be fit for respiration, may be ascertained by introducing a lighted candle. If the blaze continues, the air will not produce suffocation; but if combustion ceases, it is not fit for respiration.

tempt * should be to restore its *heat* and the *circulation* of the blood, by friction with warm flannels, and by placing bladders, filled with warm water, to the pit of the stomach, and soles of the feet. Ether and other spirits, recommended by the Humane Society, for external applications, are *very hurtful*; the degree of cold produced by their evaporation † counteracting the effects of friction.

The restoration of the important functions of the ‡ lungs, should be attempted by forcing air from a bellows, through one nostril §: the other and the mouth being kept *closely* shut, an assistant should gently press down the ribs, so soon as their elevation indicates a distension of the lungs, and this alternate inflation and compression should be continued some time, so as to imitate natural respiration: the friction of the body, &c. being still continued by the other assistants.

The brain and the heart should be stimulated by passing through them the galvanic fluid. For this purpose, Dr. De Sanctis, an eminent physician of London, has lately invented a cheap galvanic apparatus which is accompanied by instructions to enable any person to use it. The primary moving powers of the body, or the seat of vitality itself being in the brain, this remedy is of such importance, that the apparatus should be kept in every parish.

* If the suspension be occasioned by noxious vapours taken into the lungs, the first object must be their expulsion, by compressing the ribs and bowels so as to force up the diaphragm, the air will be thus in a great measure expelled, and on removing the pressure, the atmospheric air will rush into the lungs, when the heart generally begins to flutter, and life gradually to return.

† It is a well-known fact, that an animal may be frozen to death by applying ether to the surface of the body, its rapid evaporation carrying off the vital heat.

‡ Dr. Cullen, in a letter to Lord Cathcart on the subject of suspended animation, says, that very often the water does not enter the lungs in any material quantity, and that death ensues in consequence of the stoppage of respiration, and the consequent ceasing of the action of the heart, whereby the body loses its heat and vital principle. Mr. Hunter, in the Philosophical Transactions, Vol. XLVI. advances the same theory, and asserts, that the restoration of breathing is all that is necessary to restore the heart's motion.

§ During this process, it will be proper to draw the tongue forward, in order to elevate the epiglottis, which, by opening the larynx, will facilitate the admission of air into the lungs. If this be neglected, the air will be more likely to pass down the gullet into the stomach, the distension of which, by forcing up the diaphragm, will, in some degree, elevate the chest, and thus deceive the attendant by giving the appearance of the air having entered the lungs. Great care, however, should be taken, that the air does not escape through the mouth, instead of passing into the lungs, on account of the drawing forward of the tongue.

The bowels should be fomented and stimulated, by throwing up a quantity of warm water, with a handful of common salt dissolved in it, which may be done with a clyster pipe and bladder. The injection of tobacco fumes up the fundament, recommended by the Humane Society, from the *narcotic* quality of the herb, is more likely to prove hurtful than otherwise. It is strange, a herb, noted for its extraordinary effects in *diminishing* the vital functions, should be proposed as a *stimulant* in cases of their suspension.*

A slight agitation of the body, every six or ten minutes, will act as a great auxiliary to those means.

Bleeding having a tendency to weaken the force of the circulation more than promote it, should be employed only when deemed necessary by a medical practitioner. When, however, there is an evident congestion of blood in the vessels of the head, which is generally produced by strangulation, the opening of the jugular vein will prove very beneficial, and should not be delayed.

On the appearance of any symptom of returning life, a tea-spoonful of sal volatile, or a table-spoonful of warm brandy, should be got into the stomach, either at once, or by small quantities frequently repeated.

The matter of heat being the stimulus most likely to bring the vital powers into action, warm water heated to about 100 degrees (Fahr.) may also be injected into the stomach and rectum.

If, after a *vigorous* employment of these means, for the course of *two hours*, there should be no symptom of returning life, and any brewhouse or warm-bath can be obtained, the body should be carefully conveyed to such a place, and remain in the bath, or surrounded with warm grains or ashes†, for three or four hours; but if not, the plan proposed should be persisted in for an hour or two longer, there being instances of lives having been restored after *three hours'* unremitting perseverance.

* The fumes of tobacco thus administered in cases of spasmodic affections of the bowels and strangulated rupture, I have known, in many instances, to destroy life in a few hours.

† Tissot mentions an instance of a young girl who was restored to life, after she was taken out of the water to all appearance dead, by laying her naked body in hot ashes: after remaining in that situation for half an hour, the pulse returned, and she soon afterwards recovered speech. This author also relates the case of a man who was restored to life after he had remained *six hours* under water, by the heat of a dunghill!

If the subject be very young, it may be placed between two healthy persons in a bed; the natural vital warmth having in this manner proved, in many cases, successful.

The apparatus for inflating the lungs and galvanizing the body, invented by Dr. De Sanctis, and the drag, recommended by the Humane Society, should be more generally kept at public or farm houses, near to rivers and canals, many lives being undoubtedly lost for want of the latter.

For the following remarks, and representation of a new galvanic apparatus and instructions for its use, the author is indebted to Dr. De Sanctis.

“ In every case of suspended animation endeavour, as soon as possible, to restore the functions of the lungs and heart. To accomplish this, extend the body of the patient either on the moveable back of the reanimation-chair, and fix it there with bandages; or, on a convenient table, should the chair not be at hand. The position, in which the body is to be placed, is an important consideration. The head and shoulders should be somewhat raised. Having placed the body in the best and most convenient posture, introduce the inflexible metallic tube into the stomach, and fix it properly by means of the elastic regulator. Pass also the silver tube into the larynx, and close the mouth perfectly with the coated plate and its appendages. Close also the nostrils with the forceps, and the ears with cotton. Adjust the box bellows to the tube placed in the larynx, and alternately force the air into, and withdraw it from, the lungs: the latter operation may be effected by pressure on the chest and upper part of the abdomen.

“ Whilst employed in these operations, an assistant should be preparing the Pensile Galvanic Pile, as hereafter directed; and having attached it to the top of the chair, one of the wires is to be applied to the tube passing down the gullet, whilst the other is to be successively made to touch different parts of the external surface of the body, particularly about the regions of the heart, the diaphragm, and the stomach during the inflation of the lungs; then of the neck, describing the course of the par vagum or eighth pair of nerves; along the course of the spine, &c.

“ Let the globe, filled with ether or any other stimulating fluid that may be thought proper, be fixed to the tube in the gullet, and be warmed by means of the spirit lamp, which may be lighted by the *ignitor* in the chest, which also contains lancets, ribands, &c. in case of being required.

“ As soon as natural respiration is observed to take place, remove the coated plate, regulator, tubes, &c. but continue to apply galvanism and warmth aided by gentle frictions of the whole of the body, until some time after the pulse at the wrist

shall have become perceptible, and of sufficient strength to maintain its action.

“ The plates composing the pile being properly arranged, mix nitric acid and water in the glass tube in the proportion of from one to two, or even three-fifths of acid, according to the state of the atmosphere. The nitric acid is preferable to the muriatic, as it produces a more powerful effect. The cover of the bottle serves the purpose of a measure. Having introduced the needle through the small glass tube, press the plates closely together, and then immerse the pile in the bath: move it up and down in the solution from ten to thirty seconds, according to the strength of the fluid; remove it, dry it carefully with a linen cloth, press the plates closely together, and give it to an assistant to hold. Dip a finger of each hand into the solution, and then ascertain the force of the pile. Should it be found of sufficient strength, fix the conducting wires at whatever height you think proper, and add pieces of moistened linen to their ends; dip some cotton into the same liquid, and apply it to those parts of the patient which are to complete the circle; then galvanize either by current or by shocks at such distances of time as the case may appear to demand.

“ Should it be necessary to continue this process for any longer time than the strength of the pile remains, say half an hour, the pile must be again immersed in the acid solution, taking the precaution of previously plunging it into pure water and then wiping it dry.

“ The use of the pile being finished, and the knot of the string which connects the plates, unstring them and the cloths, and wash them well in clean water; dry the latter on blotting-paper before the fire, the former by means of a linen cloth, after which polish them with the rubber on fine emery paper; then wax the silken twist, knot it and string the plates as before, taking care that the zinc is the uppermost. Should there be more than one pile employed, the same attention must be paid to them in their connection and arrangement with the chief pile.

“ In other cases than those of suspended animation, the pile may (having first disposed different coated wires at various heights of the column) be enclosed in a glass vessel to avoid any inconvenience from the acid fumes.

“ The silken twist and the cloths require to be frequently changed, particularly after having been immersed in a powerful acid solution. Care must be taken that the holes of the plates are completely filled up by the silken twist.”

The following is a representation of the improved Galvanic Apparatus of Dr. De Santis.

PLATE I.

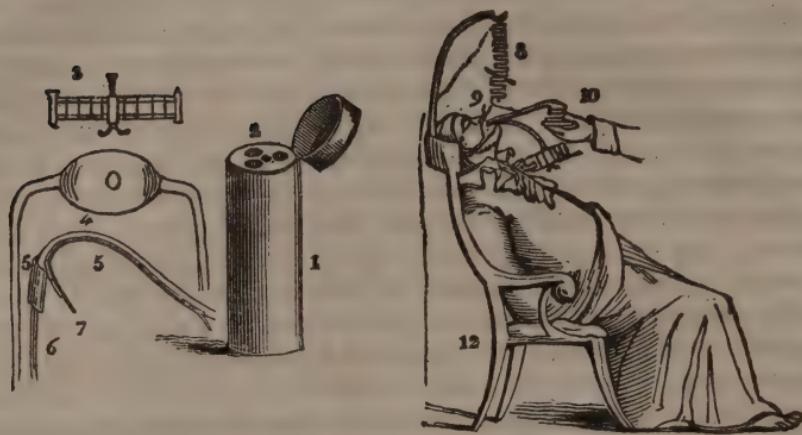
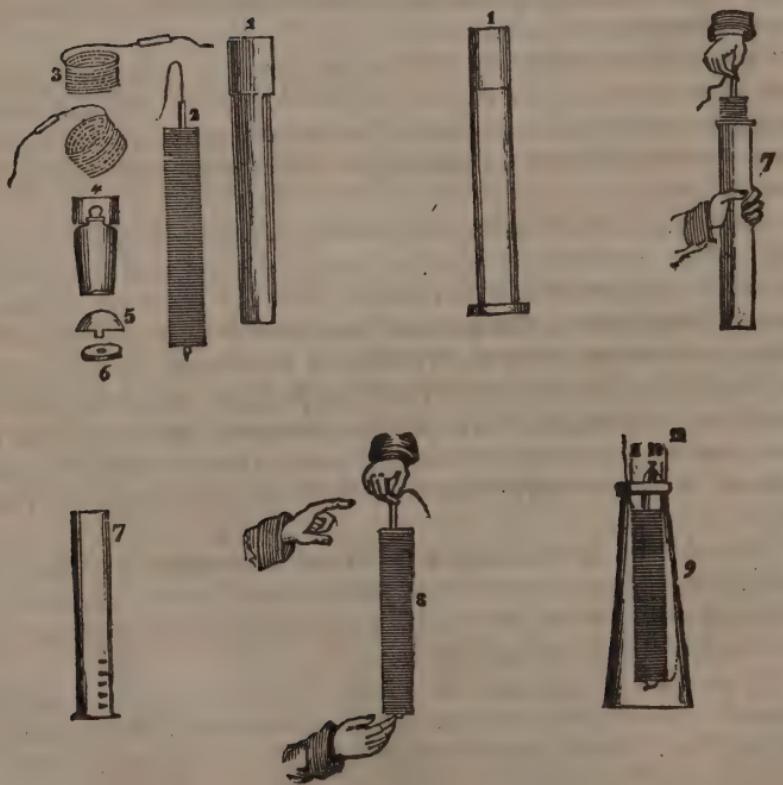


PLATE II.



** This Apparatus is sold at the Medical Hall, 171. Piccadilly.

EXPLANATION OF PLATE I.

Fig. 1. Chest of Apparatus for restoring cases of Suspended Animation.

2. Three large Cavities, one for the reception of a Galvanic Pile composed of one hundred plates, with its glass tube, &c. Another for inclosing two half piles, to be employed as appendages in cases of sudden recovery, or to form one pile for supplying the place of the exhausted one, as it is necessary to change them every half hour in cases of slow recovery; which is never to be despaired of until after four hours' ineffectual application. The remaining cavity is for the bottles of nitric acid, æther and brandy. The small hole in the case is for receiving the flexible metallic tube for the stomach. The remaining spaces will contain the other instruments. The box-bellows is to be placed inside the cover. The length of the chest does not exceed fifteen, and the diameter scarcely four inches.
3. Box-bellows fully extended.
4. Coated plate, with part of the elastic appendages for closing the mouth. It has a hole for the reception of the tubes for the larynx and stomach.
5. Regulator for fixing the tube in the stomach, closing the gullet, and for directing and fixing the tube for the larynx.
6. Part of the tube going to the stomach.
7. Termination of the tube for the larynx.
8. The chief pile fixed to the hook attached to the re-animation-chair. Should the patient be laid on a table, the pile must be supported by an assistant.
9. The forceps closing the nostrils.
10. The spirit-lamp heating the globe of æther adjusted with the neck, to the end of the gullet-tube.
11. Box-bellows attached to the end of the larynx-tube.
12. Re-animation-chair. The back and front are moveable, so as to adapt it to patients of different ages. After the operation, it may be converted into a convenient bed.

EXPLANATION OF PLATE II.

Fig. 1. Portable Galvanic Pile enclosed in its tube, for any medical case in which the application of galvanism may be deemed advisable.

2. A pile of one hundred plates, each plate one inch and an eighth in diameter and one-sixteenth in thickness, with cloths of three quarters of an inch diameter. The needle has been introduced into the little glass tube.
3. Wires, with the moveable glass tube near the end.
4. Stopper-bottle for the acid. The cover serves for a measure. The bottle is surrounded by blotting paper, the pile by emery paper, and cotton is placed in the upper part of the cover of the tin tube.
5. The rubber.
6. A piece of yellow wax.
7. The pile plunged into the bath, in which it is to be moved up and down.
8. Mode of trying the strength of the pile.
9. The pile enclosed in a glass vessel.
10. The needle, with the remaining silken-twist passed through a piece of cork and attached to a glass supporter.
11. The lowest of the coated wires attached to the positive pole.
12. The highest ditto attached to the negative pole.

The height of the wires attached to different parts of the pile denotes their strength.

The means recommended for the recovery of drowned people are equally applicable to a number of cases where the vital functions appear to be *only suspended*, such as convulsive and fainting fits, suffocation from noxious vapours, and spasmodic affections of the lungs, strangling, intense cold, blows, or falls, &c. &c. Through their being neglected, from the supposition that the person is really dead, there is little doubt but that the principles of life have been revived by the heat and pure air of the earth after interment.

TREATMENT OF A FIT OF INTOXICATION.

Different acids have been recommended for the purpose of correcting the intoxicating power of spirituous and vinous liquors, but the salutary effects that follow their use are probably produced by the diluting liquor administered with them. The recovery of a person in a fit of intoxication must chiefly depend on evacuating the stomach, which is best done by forcing down a quantity of lukewarm water, and provoking vomiting by irritating the fauces with the finger or a feather. If the person have so far lost the powers of sense and motion as to be unable to help himself, he ought to be placed in an arm-chair that will secure him from falling, and the neckcloth and collar of the shirt immediately loosened. The doors and windows of the room should be thrown open to admit of a free ventilation, and all visitors, except assistants, excluded; and whatever may add to the heat of the body should be carefully avoided.

An horizontal position, as lying on the floor or bed, favouring the influx of blood into the vessels of the brain, should be avoided if possible. In case the person cannot be kept in a chair, the head and chest should be elevated by pillows, and the body inclined a little to one side, for the purpose of rendering vomiting more easy. If the face be *much* swelled, and *unusually* flushed or bloated, the breathing *laborious*, the eyes *fixed*, and the blood-vessels *distended*, the danger of apoplexy may be apprehended; to avert which, it will be necessary to extract blood from the *temporal artery*, to put the feet in *warm water*, and administer an *acrid* clyster of common salt and gruel, and to use every means to *provoke vomiting*.* Through-

* Vomiting, under an impending apoplexy, has been considered a dangerous practice by some *inexperienced* physicians: I have long made the observation, that *spontaneous* vomiting is a *certain* relief when there is every sign of instant apoplexy; it is therefore fair to imitate nature, which ample experience fully justifies. Indeed, those practitioners who have cavilled most

out the whole paroxysm the application of vinegar, spirit of wine, or aether, to the temples and front and back part of the head, is very serviceable; the cold produced by the evaporation checks the determination of blood to the head, and moderates the heat and velocity of the circulation in the brain. The common application of pungent smelling-salts, or spirit of harts-horn, to the nostrils, by stimulating the brain, is, in this case, improper.

Since the last edition of this work was published, the sub-carbonate of ammonia in the dose of fifteen grains dissolved in water, and the spirit of hartshorn in the dose of two tea-spoonsful in a glass of water, have been recommended by some foreign physicians, to counteract the intoxicating effect of spirituous liquors.

People often lose their lives in a fit of intoxication by falling down in an unfavourable posture, in consequence of an inability to conduct themselves; the head being bent under the body, the return of blood is in a great measure prevented, and respiration obstructed or totally stopped, and by continuing in this situation the living principle is soon extinguished. It is to be suspected that most of the travellers who perish among snow are of this description: fool-hardy, under the false courage of dram-drinking, they sally out in the dark to explore their way, and quickly lose the road from the change of objects which falling snow occasions. The effect of the dram, in this situation of distress, accelerates death, by assisting to bring on drowsiness or sleep, which exposes the body to the action of cold, and the unfortunate traveller soon sleeps, "ne'er to wake again."

The resuscitative means already recommended for the recovery of drowned people, should have a fair trial before a body so found be pronounced dead, as it is impossible to say, under such circumstances, what time has elapsed since he *last breathed*; for, although the limbs be cold and stiff, the heart may still remain so warm and excitable, that on restoring heat to the body by friction, and inflating the lungs, the vital functions may again be put into motion. The body should not, however, be suddenly exposed to the heat of the fire, nor put into warm water, till there are no hopes of recovery by the other means.

at this practice, have produced no fact to controvert it, their dislike resting solely on theoretic opinions. If it were dangerous to evacuate the loaded stomach of the inebriate, vomiting, at any time, must be considered an operation not only inexpedient, but to a certainty hurtful.

THE MEANS OF STOPPING A FLOW OF BLOOD
FROM WOUNDED LIMBS, &c.

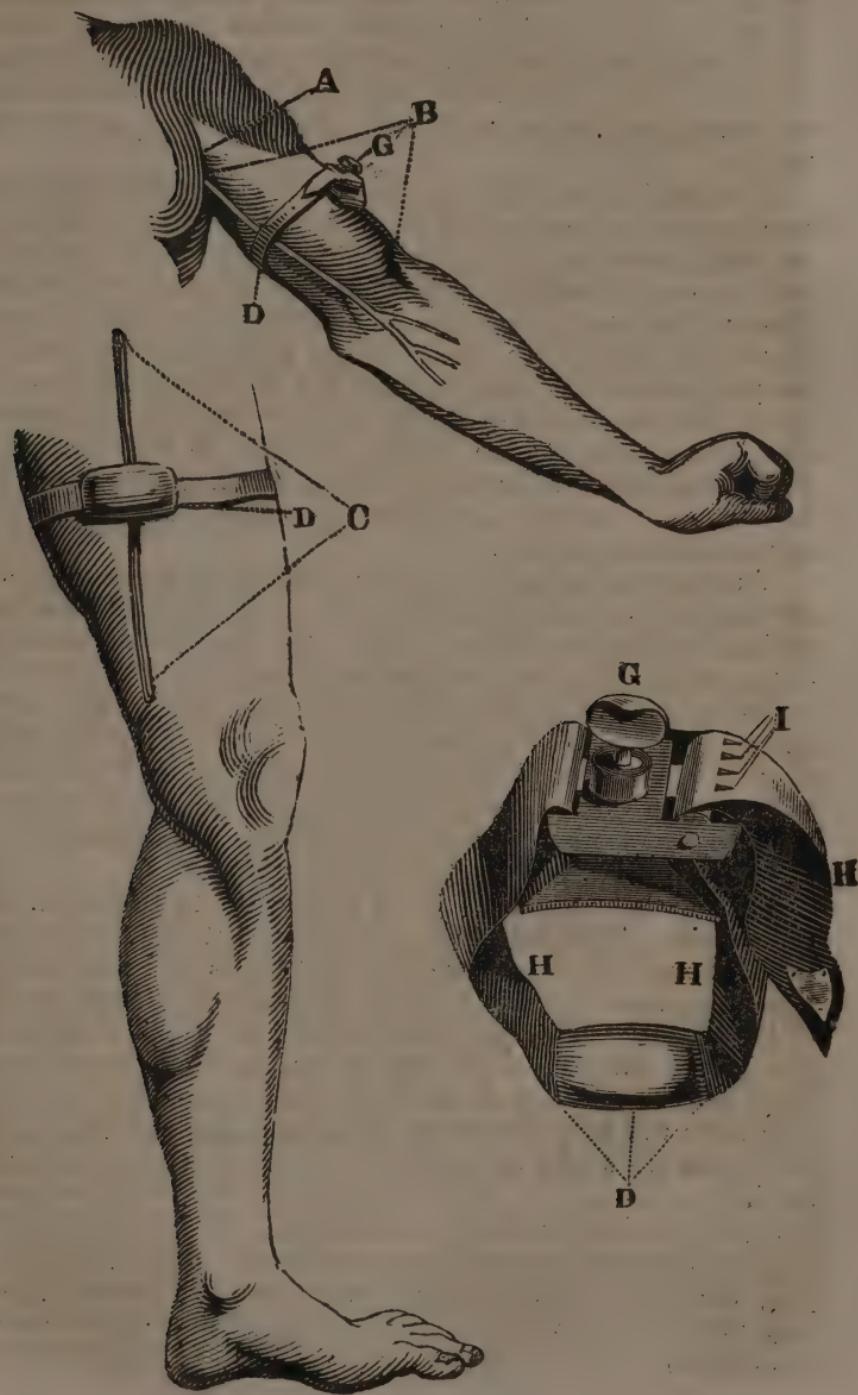
In all cases of divided arteries of the extremities, the first object is to prevent the loss of blood, by compressing the trunk of the vessels *above* the wound, till surgical aid can be obtained. For this purpose, an instrument is generally employed called a *tourniquet*, which, when skilfully applied, never fails immediately to suppress the bleeding.

In order to render the use of this instrument more familiar, I have given an engraving which represents it *on* and *off* the limb, and also the course of the arteries of the arm and thigh.

The artery of the upper extremity or arm, proceeds from the trunk at A, in the following manner: the trunk passes into the arm-pit, *deeply situated*, then proceeds along the inward part of the arm *obliquely* towards the fore-part of the joint of the elbow, and here divides into three branches; in this course to its division it lies *near to the bone*, and therefore admits of being more successfully compressed. The situation of this trunk is described in the plate by the lines B. The compression for preventing the flow of blood from divided arteries of the upper extremity, whether above the elbow, or of the hand, must therefore be made in some part of the course of the trunk of the artery expressed by the lines B, between the arm-pit and the bend of the arm.

The distribution of the vessels of the *lower* extremity is thus: the artery passes from the cavity of the belly to the groin, where, in *thin* people, the pulsation of it may be felt. Here, in cases of a wound and effusion of blood *very high up* in the thigh, effectual compression may be made by the fingers, or a strong pad, or firm body, pressed *very strongly*.

From the groin, the artery proceeds in an *oblique* direction downwards and inwards, as expressed by the line C; and about the middle of the inside of the thigh, expressed by the compress D, it lies close to the bone, which of course is the most favourable part for making a pressure on it, because of the resistance of the thigh-bone; and when the wound is in any part *below* it, that is the place which surgeons fix on for the application of the *pad* of the *tourniquet*. The course of the vessel is then *downwards* and *backwards* to the ham; in the *hollow* of which, against the lower flat part of the thigh-bone, the compression may be very successfully made in all cases of wounds or operations below the knee-joint; but, *beyond* this part, compression must not be depended upon, for immediately below the joint the artery divides, like that of the upper extremity, into three vessels, which are situated *between* the bones of the leg.

THE TOURNIQUET APPLIED TO THE UPPER ARM
AND THIGH.

In using the tourniquet, great care must be taken that the pad, D, be applied over the artery, and the instrument itself as nearly opposite to it as possible. The bandage, H, is then to be conducted round the limb, passed through the opening of the instrument *behind* the roller, drawn over it very tight, and secured by fixing it on the three steel points, I: in most instances, this will be found sufficient; but, if it should not, a few turns of the screw, G, will effectually complete the intention.

The pad, or compress, is not, in all cases, necessary; and even when the discharge of blood is considerable, if there be any doubt about the exact place to which it should be applied, it may be omitted entirely. The circular bandage, when made tight, will effectually compress both the trunk and the collateral branches of the artery; and therefore many surgeons consider the pad useless. When it happens not to be applied over the artery, but on one side of it, the pad may prevent the compression of the artery by the circular bandage, in consequence of which, the blood will continue to flow. Such a circumstance I have known to happen during the amputation of a limb at one of the London hospitals.

If the wound be on the head, or trunk of the body, the most effectual and easiest method of applying pressure, is by means of dossels of lint, or soft linen, held *firmly* upon the divided ends of the vessels, or over the wound, by the fingers.

The tourniquet is only employed in case of the division of any of the vessels of the extremities which convey the blood *from* the heart, termed *arteries*. In consequence of the power with which the blood is propelled through this system of vessels, it happens, that when they are wounded, the blood flows *rapidly* and *in jerks* from the wounded part.

The vessels by which the blood is returned to the heart, are called *veins*. The blood in them receives but little of the impelling force of the heart, and therefore moves not with a strong tide or current, but glides *evenly* and *gently* on: hence wounds of these vessels are of very little importance, a small degree of pressure by a finger, or a dossel of lint, or some folded linen, upon the wounded part, will effectually stop the bleeding. The same will be sufficient in cases of divided arteries, when the vessels are small, or when a tourniquet or bandage is not at hand.

Agaric, and other fungous substances, and preparations of iron and the mineral acids, have been much extolled for stopping the bleeding of wounds; their astringent effects, if any they produce, are very temporary, and are *always* productive of mischief, by irritating the wound, and preventing the union

of its edges, or what is termed its healing on the first intention.

The same may be said of Friar's or Turlington's balsam, tincture of myrrh, &c.

OF PHLEBOTOMY, OR BLOOD-LETTING.

The operation of bleeding being so frequently performed by farriers and barbers, it is generally regarded by the public as trivial with respect to its execution. However, whether we consider its influence on the system, or the niceness of the mode necessary for effecting it, it is nearly equal in importance to any operation in surgery; and hence many expert surgeons have almost an invincible dislike to it, while the person ignorant of the great nicety, steadiness, and exactness, necessary, as well as its effects on the constitution, performs it with the greatest freedom, but not with uniform success; as is proved by the many melancholy cases that are admitted into our hospitals in consequence of the ignorance of the operator, either by wounding a tendon or puncturing an artery.*

When the intention is to lessen the general mass of blood, the superficial veins on the front of the arm, over the bend of the elbow, are not only more safe and convenient for opening, but experience has proved that the blood flows more freely from them, which, in many acute diseases, is of great consequence; for it is a well-established fact, that the *speedy* extraction of a few ounces of blood is more beneficial than double the quantity taken slowly from a small vein or orifice.

The person being properly seated in a good light, a bandage should be tied round the upper arm about three fingers' breadth above the elbow, sufficiently tight to compress the veins so as to prevent the return of blood, but not so tight as to prevent its passing by the brachial artery; for after the ligature is applied, the pulse should continue to beat, otherwise the vein will scarcely bleed after it is opened. A vein of moderate size,

* A blacksmith, in Herefordshire, who had obtained great celebrity as a bleeder, was requested by his wife to take a little blood from her arm on account of some slight indisposition. The lancet having unfortunately penetrated the brachial artery, and his usual means of stopping the flow of blood failing, he had recourse to pressing over the orifice cobwebs and lint, with such force, that a considerable portion entered the wound. The blood still continuing to ooze out, and the arm being considerably swollen, he sent her to the Hereford infirmary; but the inflammation having extended to the chest, and mortification commenced, amputation would have proved of no avail, and the poor woman died the following day!

under which *no beating* or *tendon* can be discovered, should be chosen. The arm should be extended, and if the vein do not rise well, the patient should shut his hand or grasp a stick: the operator should then take the arm into his left hand, and if the vein appear loose under the skin, he should place the thumb of his left hand on it, about an inch and a half or two inches *below* the part he has fixed on to make the puncture. The lancet, being firmly held between the fore-finger and thumb of the right hand, is then to be *steadily* introduced into the vein *obliquely*, and taken out by *elevating the point* so as to *enlarge* the puncture. When the quantity of blood judged sufficient has flown, the ligature is to be removed; and the edges of the orifice being carefully brought together, a compress of fine linen is to be laid over it, and the arm bound up with a riband. The right arm is more convenient to the operator than the left. If the patient be subject to faint during, or after the evacuation of blood, he should be placed either on a bed or couch. In some diseases, however, as strangulated rupture, inflammation of the brain and lungs, &c., it may be deemed advisable to induce fainting; for it is an admitted fact, that when bleeding produces a degree of fainting, it proves in those cases much more serviceable. It will, therefore, in some instances, be proper that the *trunk* of the body be placed erect on a chair, as most favourable for producing this effect.

There are often so many unpleasant circumstances happen, not only during the operation (as the cellular membrane blocking up the orifice, the blood passing under the skin, &c.) but from the loss of blood, that it should only be performed by, or at least with the consent of a medical practitioner; for, as an old physician justly observes, "it is taking away what medicine cannot give." In internal bruises, occasioned by severe falls, it is certainly necessary that the patient should lose blood immediately; when, therefore, the aid of a surgeon cannot be readily obtained, the *advantage* that would result from the *immediate* extraction of blood may, in general, more than counterbalance any slight mischief that may ensue from the operation not being judiciously performed. In sudden attacks of apoplexy, inflammation of the lungs, pleurisy, and all internal inflammations and inflammatory fevers, attended with determination of blood to the head or lungs, the *speedy* loss of blood is often of considerable importance; but as the *topical* extraction may prove more beneficial than *general* bleeding, even in such cases it will be advisable to defer it till the practitioner arrives, provided a greater delay than six or eight hours be not occasioned by it.

The symptoms of plethora, and particularly the fulness of

pulse, on which popular medical writers have laid so much stress, as indicating the necessity of bleeding, are very fallacious; for inflammation of either the lungs, brain, or bowels, is often attended with a *small and feeble pulse*, which *after* the loss of blood will become *full and strong*: hence, again, in apoplexy the pulse is rendered feeble in consequence of the compression of the brain, which frequently after the evacuation of blood will so far rise as even to indicate plenitude and strength; and it often happens in dropsical complaints, where the loss of blood would prove fatal to the patient, the pulse will beat with unusual strength. The pulse likewise of an old person will feel hard and firm, from the *rigidity* of the coats of the vessel; hence the learned Celsus justly calls it “*res fallacissima*;” and the late Dr. Heberden, in the London Medical Transactions, has published some ingenious observations, to shew how little it is to be depended on *alone*. (See the remarks on the pulse, under the head of Questions to Patients, Part II.)

To these observations on bleeding, it may not be amiss to subjoin some remarks on the practice of

PERIODICAL BLOOD-LETTING.

The loss of blood at certain periods of the year is an error very common amongst the lower orders of people, and I conceive extremely inimical to the constitution. Bleeding is unquestionably a remedy of the greatest importance in a number of diseases; but, like all others, it has been much abused, and perhaps in few instances more than in that which relates to this absurd custom. A celebrated author observes, that “he who wantonly or capriciously squanders this vital fluid, obstructs, and, as it were, cuts off, the sources of his support and regeneration.” The most essential and constituent parts of the human frame are formed from the blood*; and though it be true, that the blood evacuated by periodical bleeding is soon reproduced by the activity of the vital powers, yet this restoration is only brought about with considerable efforts, and at the expense of the whole machine. In most inflammatory affections, as I have already observed, bleeding, regulated according to circumstances, is often of greater importance than any other remedy, and doubtless has saved the lives of many; but those persons who, from a notion of preventing diseases, suffer themselves to be bled *regularly* once, twice, or oftener, in a year,

* “The blood is the life of man;” that is, this fluid distributes nourishment and the matter of heat to every part of the body.

whether they are indisposed or not, ought to be informed that they are using means which, if persisted in, are likely prematurely to bring upon them those very diseases which they profess so much to dread, and appear solicitous to avert. Where the habit has been established, it may be safely and easily overcome by substituting, in the place of bleeding, at those periods, a gentle purgative, and in order to prevent its future necessity, to abstain as much as possible from animal food and spirituous liquors. A vegetable diet affords the same support as meat; and has the very important advantage of not producing plethora.

The system is affected in two ways by plethora. In elderly people especially, the vessels are often overloaded, and by compressing the brain, produce great prostration of strength, coldness of the extremity, indigestion, &c. In this case we have recourse to bleeding, to remove a mechanical cause; and by the extraction of blood, the patients seem to feel as if a weight was taken off the springs of life, the circulation becoming more free, and the heat of body increased. In young subjects, and not unfrequently old ones, the blood abounds too much with red particles, occasioning increased heat or fever, and irritation of brain; in this case we extract blood for the purpose of diminishing the quantum of red particles in the circulating mass. In cases of accident, we bleed with the same view, to take off a state of system that would favour inflammatory action, and thus prevent fever as well as local inflammation.

OF SUBSTANCES LODGED IN THE GULLET, OR STOMACH.

When any substance is lodged at the *top* of the gullet, it may, in general, be removed by the fingers, or a pair of forceps; but, when it has descended *far down*, it will be necessary to push it into the stomach, by introducing a probang (made with a piece of soft sponge fastened to the end of a slip of whale-bone); but if the article swallowed be *sharp-pointed*, or have *acute angles*, this operation must be conducted with *great care*, as by the employment of *much force*, it may be made to penetrate the substance of the gullet, which, in cases of *pins, needles, nails, or sharp pieces of bone, or glass*, is not an unfrequent occurrence.

When the article has passed into the stomach, whether it be *sharp-pointed, angular, or large*, no means should be taken to *hasten* its passage through the alimentary canal; for if it be *sharp-pointed*, it will be less likely to injure the intestines by passing *gently* with *hard fæces*, than by being hurried through

them with *liquid* ones; and if it be large, as a shilling, a half-penny, a bullet, or fruit-stone, it will require some time to pass through the orifice of the stomach (termed the pylorus) into the intestines, and the more gradually it makes its way, the less mischief is likely to ensue. When this practice has been pursued, I never knew any serious consequence to follow the swallowing of such articles; but have frequently known much mischief produced by the exhibition of aperient medicines, with a view to carry them off more speedily by stool.

If the article be metallic, as lead, copper, &c., it will be advisable to caution the person against the use of *acids*, till it has passed through the intestines, and to correct and prevent acidity, by taking a little magnesia every morning.

Emetics should never be given with the view of bringing any foreign body from the stomach, without the sanction of an *experienced* physician or surgeon, unless it is likely, from its chemical powers, to injure the stomach.

The late Dr. Buchan, in his Domestic Medicine, observes, that if the various means he has suggested to hook out substances lodged in the gullet should fail, the operation of "bronchotomy, or opening the windpipe, must be performed." What advantage could possibly be derived from making an opening into the windpipe to remove a substance retained in a different tube, must puzzle an anatomist to conjecture. Should an apothecary, not conversant with the anatomy of the parts, be induced, by the great agony and apparent danger of the life of the person, to follow this author's advice, and after making the incision of the windpipe, and not finding the obstructing body there, should cut down to it, the life of the patient would very likely be destroyed.

When the substance cannot be removed, and the patient's life is endangered from the want of due nourishment being thrown into the system, or the person likely to be suffocated in consequence of the compression of the posterior part of the windpipe, *œsophagotomy*, or making an incision into the gullet, may be necessary; in performing which the windpipe is not wounded. On account of the imminent hazard attending this operation, from the great blood-vessels that lie contiguous to the part, it is never practised but in cases of the utmost danger, and should be performed only by a surgeon well versed in the anatomy of the parts. Under such circumstances, nourishing clysters have been known to support life for many weeks. (See **NUTRIENT CLYSTER.**)

OF SUBSTANCES AND INSECTS LODGED IN THE EAR.

Although the formation of the external parts of the ear and viscid nature of the internal secretion are admirably calculated to prevent flies or foreign matter getting into it, yet it happens that much distress is sometimes induced by children pushing small peas, fruit-stones, and other such articles, into their ears, and by flies and other insects frequently creeping into them, which, by touching the tympanum, produce much noise and distress. They may, in general, be removed with facility by a common forceps: when the substance, however, is round, it may be more readily turned out by means of a curved probe, the end of which should be passed behind it: if the article be large, a little oil should first be dropt into the ear.

When an insect is so far in the ear that it cannot be taken out with forceps, the best method of removing it is to wash it out by throwing in warm water, or any other mild liquid, by means of a syringe. If it adhere with firmness, which it often does while living, the ear may be filled with oil or brandy, which may be kept in for some time (by the person resting his head upon the opposite side), for the purpose of killing it, when it may be readily removed by forceps, or a curved probe.

Peas, and other soft bodies which swell with moisture, are so apt to become large by remaining in the ear, that they should be removed as soon as possible. When it has been neglected, and the substance cannot be taken out from its enlarged state, it must be divided with the points of a pair of scissars, or a sharp small hook cautiously introduced along the passage; and as soon as sufficiently divided, it may either be removed by piece-meal with the forceps, or washed out with a syringe. In the same manner peas and other extraneous bodies may be removed from the nostrils.

OF THE INFLUENCE OF THE MIND ON THE BODY.

The brain is clearly the seat of the intellectual operations and sensation, and hence the mind and body reciprocally act on each other. The mind is only to be traced by its operations and effects, and that these may not be carried so far as to injure the body, we find this invisible principle possessed of a peculiar power (denominated Reason), as a guide for its movements and conduct. The influence of this embodied principle on the body is often very great, some of its passions exciting, and others depressing, the vital energy of the system. If man be

thus subject to the influence of the passions during health, how great must be their effects when the vigour of health no longer sustains his frame? It must appear obvious, that those who undertake the important office of visiting the sick, and prescribing for the cure of their maladies, should cultivate an acquaintance with the anatomy of the mind, as well as of the body.

Of the influence of the mind on the body, some further remarks are given in the second part of this work, under the head of "Introduction," where the causes of dreams, delirium, insanity, spectral delusions, are likewise noticed.

OF THE PASSIONS OF THE MIND.

The passions may be considered as the gales of life, from whence proceed the "issues of good and evil." They are the source of every agreeable and of every painful feeling.

The passions may be divided into two kinds, namely, the exciting or enlivening, and the depressing. They operate on the body, either suddenly, or in a slowly progressive manner. Death has been known to be the immediate effect of the former, while the latter generally diminish the vital powers. The choleric and sanguine constitutions suffer chiefly from the violent passions, and the phlegmatic and melancholic, whose sensations are dull, fall victims to those of an opposite kind. The long continuance of one passion, by irritating the brain, is apt to produce bodily disease, and frequently terminates in derangement. The cure of mental diseases has, at all times, formed the most difficult task for the physician, so much so, as to render it proverbial. Thus, in the language of Shakspeare, "Who can minister to a mind diseased?" Change of objects, of impressions, and ideas, are the most powerful means of rousing the intellectual functions of the brain; for argument, in general, has but little sway. The early management of the mind, by a proper education, is the best guard against the mischievous effects of the passions at an after-périod. Their controul becomes then a habit with the individual, and prevents any excesses which might otherwise spring from their occasional excitement by unforeseen circumstances. Hence it may be laid down as a leading maxim, that the controul of our passions is an indispensable requisite to the proper enjoyment of health. But, in order to point out the effects of passions more clearly, it will be necessary to consider each of them separately. The first of the passions, and one we naturally wish to begin with, is

JOY.

This is a state of mind in which there is felt extraordinary pleasure, and in which a high degree of animation takes place.

The heart is expanded ; the circulation rendered free and vigorous ; the eyes sparkle ; and the mind becomes complaisant and mild. Hence this state is favourable to the enjoyment and recovery of health, where the body is languishing under general debility or nervous depression. Of this passion a variety of modifications or degrees occur, under the names of gaiety, cheerfulness, mirth, &c. &c.

The state of mind produced by this passion may be much favoured by a proper attention to the state of the evacuations, and also to the regulation of diet. The evacuation by the skin is in particular of the first consequence, and the diet should be of easy digestion, of an aperient quality, and in considerable proportion of a vegetable nature. Hence a warm air has a great influence in producing the state of mind favourable to this passion ; and by the circulation being promoted by this benign disposition, a tendency to obstruction is prevented. Excessive joy, however, is often attended with severe evils ; instantaneous death has occurred from the immediate and rapid tumult produced on the spirits by its unexpected occurrence. Wherever, therefore, it is carried so far, though even in less degree, as to occasion sleepless nights, and great evacuations by the skin, which it is apt to do ; then it is necessary to moderate this extreme passion, as more dangerous than even grief, which excites the very opposite sensations. It is better to prepare the mind gradually to meet the emotions of this passion, by which the effects will be lessened and regulated.

Laughter may be considered as a mode of expressing this passion, and, when kept within moderate bounds, is highly useful. "Laugh and grow fat," though a vulgar proverb, is a proof of its utility, and of common belief on this point. It promotes the circulation of blood through the lungs, the energy of the nervous system is increased, and hence laughter has proved the means of relieving pains of the stomach, cholic, and many chronic maladies connected with obstruction, or nervous debility. The bursting of abscesses, in critical situations, has often been hastened by it.

HOPE

Is a modification of joy, or rather, joy by anticipation. It is real joy without alloy, which often happens when the actual event or good, which gives rise to it, arrives. Hope, then, is the most pleasing state the mind can be in, and is highly favourable to health. It tells always, in the language of the poet, "a flattering tale," and paints the image, not as it is, but as it ought to be. Its beneficial influence on the body has been

evinced in numberless instances, where it has produced a serenity of thought, and tended to prolong existence even in the most forlorn situations. It may be said to be that passion, or affection of the mind, which is the latest to leave us, and which continues to linger with us till the extinction of the vital spark on this side of the grave, and to point out, even before this event is completed, the scene that is expected beyond it. Hence it conveys, more than any other of our passions, an idea of

The divinity that stirs within us,
And points out immortality to man.

Hail thou first best feeling of our nature ! Mayest thou never, in this scene of vicissitude, forsake us !

OF LOVE.

This is the strongest of all the passions that affect our nature; and less under the controul of reason than any other: and this we must admit is wisely ordained, when we consider that it is intended as the principle on which the continuance of the species depends. This passion generally affects the mind by degrees; but it is, at the same time, when once rooted, more fixed than any other; and hence the caution that ought to be observed, in not giving way to it at an early period, when it is under the restraint of the will. Hence the just advice of the poet : —

With caution and reserve indulge the sweet destroyer of repose,
Nor court too much the queen of charming cares :
For, while the cherish'd poison in your breast
Ferments and maddens, sick with jealousy,
Absence, distrust, or ev'n with anxious joy,
The wholesome appetites and pow'rs of life dissolve in languor :
The coy stomach loathes
The genial board, your cheerful days are gone ;
The gen'rous bloom that flush'd your cheeks is fled :
To sighs devoted and to tender pains,
Pensive you sit, or solitary stray,
And waste your youth in musing. Musing first
Toy'd into care your unsuspecting heart ;
It found a liking there, a sportful love
Which musing daily strengthens and improves
Through all the heights of fondness and romance ;
And you're undone, the fatal shaft has sped,
If once you doubt whether you love or no.
The body wastes away ; th' infected mind,
Dissolv'd in female tenderness, forgets
Each manly virtue, and grows dead to fame.

But while we thus caution against giving way to this passion in an ungovernable degree, it is not to be denied, at the same

time, that the best effects are known to follow its reasonable indulgence. An attachment to a beloved object has been known to cure the most obstinate disorders, which resisted every other remedy; and it has produced a total change on the powers and disposition of the mind, often for the best purposes, by giving it an ardour and heroism to vanquish every obstacle that may present itself to its desires. It is when this passion is under the necessity of being concealed, and where there is no hope of enjoyment, as in many cases in the female sex, that it proves so detrimental to health, and preys with a secret uneasiness on the mind; such as is so beautifully described by Shakspeare, when he says, —

She never told her love,
But let concealment, like a worm i' the bud,
Feed on her damask cheek : she pin'd in thought,
And, with a green and yellow melancholy,
She sat like Patience on a monument,
Smiling at Grief.

When long continued, it constitutes grief; when diversified by alternate agonising sensations between hope and despondence, it is named distraction; and when overwhelmed with disappointment, it is properly despair. This passion, in its general feeling and effect, may be styled the slow poison that corrodes the mind, and, in the language of Scripture, "The worm that gnaws within;" the body becomes gradually enfeebled by its suffering, the circulation rendered slower, occasioning obstruction of some of the viscera. The digestive organs no longer perform their functions properly: the nervous system is rendered irritable; the temper peevish; and the mind occupied solely with its own ungrateful feelings, the unhappy individual falls a prey to melancholy, and in time, in common language, dies of a broken heart.

Indolence and solitude are ever the supporters and nourishers of grief. Occupation and society are, therefore, its chief remedies. In this point, music will form an useful lenitive. According to the poet,

There is a charm, a power that sways the breast,
Bids every passion revel or be still,
Inspires with rage, or all your cares dissolves;
Can soothe distraction, and almost despair.

That power is music. — Perspiration should be promoted by the warm bath; and a dry, warm, or temperate climate should be the situation chosen for a residence. Weeping is generally

the termination of a violent paroxysm of grief, and should be considered as giving relief, and as an useful palliative remedy. The next passion that claims our attention, and the most fatal of the whole, when carried to extravagant bounds, is

ANGER,

Which has accordingly been termed a short-lived madness, and is frequently fatal by occasioning a determination of blood to the head, and thus inducing apoplexy. This effect of it is thus beautifully described by Armstrong:—

But there's a passion, whose tempestuous sway
 Tears up each virtue planted in the heart,
 And shakes to ruin proud philosophy:
 For pale and trembling Anger rushes in,
 With falt'ring speech, and eyes that wildly stare,
 Fierce as the tiger, madder than the seas,
 Desp'rate, and arm'd with more than human strength.
 But he whom anger stings, drops, if he dies,
 At once, and rushes apoplectic down;
 Or a fierce fever hurries him to hell.

Anger, therefore, according to its degree, induces different spasmotic and convulsive symptoms. Irritability of disposition evidently disposes to this passion, and particularly the hysterical and hypochondriac temperaments, as well as those of dry and rigid constitutions. In the former of these cases, when the passion is moderate, it is frequently beneficial, by increasing the circulation when sluggish; but in the latter constitutions its attack is always dangerous, and every act should be avoided that might tend to produce it. For such persons a mild diluent diet is most proper.

All stimulating food should be avoided, and an indulgence of sleep allowed. A fit of anger should be treated as an inflammatory disease.

FEAR

Is a passion in its effects something similar to grief, for it weakens the powers of body and mind in various degrees, according to its different stages. It has been known to produce lunacy, and in its highest fit of terror to prove even fatal. Bashfulness, anxiety, and terror, are all different modifications of it. It particularly favours the attack, and increases the malignity of epidemical diseases; and, by producing a weak-

ened circulation of the surface, gives rise to various cutaneous affections, and other ills, as palsy, loss of speech, epilepsy, &c. The treatment under violent degrees of it should be the same as that suited to spasmodic maladies, by first removing the spasm produced, and then promoting the different evacuations that may be interrupted.

A very interesting view of the passions is exhibited in the Holy Writ. That penitent passion of conscious guilt, SHAME, follows the awful interrogation of the first man; “*Adam, where art thou?*” *Dissimulation*, a passion unworthy a liberal mind, the result of *fear* combined with *guilt*, is immediately prominent in the assumed *exculpation*, “*She gave me of the tree, and I did eat.*” The sacred historian pourtrays the dreadful impetuosity of anger in the first-born human being, who affords an example of wrath of the most implacable nature; — the wrath of one brother persecuting another unto murder, preceded by all the grovelling suspicions of superior merit, expressed in a *sullen* or a *fallen countenance*; and avenged by supreme Justice, in an appeal to the heart, which almost chills the blood; “*What hast thou done? The voice of thy brother's blood crieth unto me from the ground.*”

In the under-plot of *sinister* passions, we see in a wife and parent the influence of *prejudice*, *insinuation*, and *treachery*; still further degenerating into *avarice*, in the character of one son; and pathetically contrasted in the generosity of an injured brother, and after the emotion of *anger* had subsided, “*who ran to meet him and embrace him, fell on his neck and kissed him, and they wept.*” This picture, for strength of colouring, for the chaste union of strong and tender passions, is not perhaps exceeded by any on record.

The lesser passions of *envy*, *jealousy*, *disappointment*, *fretting*, &c. may be all considered as modifications of the more important ones above detailed. The general treatment of all mental disorders may be comprised under the following heads: —

1st. To remove, as far as possible, the cause of the passion; whenever passion is predominant.

2d. To inspire, according to circumstances, an opposite passion, as a means of cure.

3d. To present to the mind a variety of scenes and objects of a different nature from that of the prevailing passion.

4th. To affect the feelings by the power of music.

5th. To attend to the state of the skin and bowels. And,

6th. To observe a guarded regimen during the prevalence of any passion, in food, drink, and medicine.

OF DIET.

Diet consists in that course of eating and drinking which every man employs for the support of life; and varies therefore with every individual, in a certain degree, according to taste and circumstances. In a medical view, however, it is proper to consider the course of diet which is best suited to each period, without regard to any thing extraneous; and in so doing I shall begin with that of youth.*

OF THE DIET OF YOUTH.

The diet of children and young people should consist greatly of diluents, in order to facilitate the progress of youth. Hence broths, and a large proportion of vegetables, are the most suitable nourishment. Milk also is a proper part of diet, and it should be used in every form during this stage of life. In point of drink, water is the best, and should be almost the only beverage. Seasoning of all kinds should be avoided, and nothing should be taken that can, by stimulating the system, induce a too early maturity, before the constitution is ripened for it by years.

ON THE DIET OF MANHOOD.

With complete adolescence, the quantity of food necessary for the period of growth should be abridged; but from the active scenes of life in which the body is then engaged, the food should be of a more stimulating nature, and a proper proportion of animal food interposed. The proportion, however, must be regulated by circumstances; thus, those who pursue a sedentary and studious mode of life should be more sparing in the use of animal food, and stimulant drink; for by excess of nourishment to the body, the intellects are found proportionally weakened. Those of a firm and vigorous habit possess a strong disposition to inflammatory diseases. Excesses therefore should be particularly avoided by them, especially in the use of fermented drinks. Where the constitution is delicate and irritable, a diet moderately stimulating is most suitable, with a very spare use of fermented liquors. The sanguine should confine their diet chiefly to vegetable food, and their drink to water without any impregnation. The phlegmatic habit admits a greater latitude in the use of a stimulating diet than any other, and both seasoning and stimulating drink will

* For the diet of infancy, see Feeding of Children.

prove less hurtful to such a constitution; the chief point is to guard against corpulency. Where a dry habit prevails, young meat, with fruits and fresh vegetables, forms the best regimen; and in point of drink, good wine, diluted with water, is preferable.

With respect to drink, at all periods of life, temperance is necessary. Strong liquors are indeed best suited to cold climates, and here they are generally used to excess. In warm climates, though their temporary use may be called for at intervals, the practice should not be indulged. (See INDIGATION).

OF THE DIET OF AGE.

The diet of age, or after fifty-five, should return somewhat to the early periods of life. The proportion of solid food should be lessened, and the diet recommended for youth adopted; thus broth and liquid food should mostly be used: and all nourishment taken of an easy digestion, with a moderate use of seasoning. The appetite is more languid, and the machine requires to be stimulated. Well-fermented liquors, especially wine, are also proper, for the system must be invigorated and supported, unless the subject be of a full habit, or disposed to apoplexy. (See Prevention of Apoplexy.)

OF DIET UNDER DISEASE.

If an attention to diet be necessary in health, it is certainly still more so under disease, and the forms suited to the latter come next to be examined.

LOW OR FEVER DIET

May consist of panada; gruel; milk, thickened with arrow root; plain bread-pudding; arrow root; salep; tapioca jellies; rice milk; chicken or veal tea.

Drink.—Barley-water, acidulated with lemon or orange-whey; thin gruel; balm, or mint tea.

RESTORATIVE, OR CONVALESCENT DIET.

Rice or bread pudding; hart's horn, isinglass, or calves' feet jelly; shell fish; flounder and soles; veal; fowl, rabbit, and lamb.

Drink.—Fresh small beer; porter; Port or claret wine, with water; weak brandy and water.

GENEROUS OR FULL DIET.

Rice or bread pudding; strong beer; broth or gravy soup; shell fish; rabbit, veal, lamb, mutton, beef, pork, &c.; jelly of hart's horn, calves' feet, or isinglass; meat soups; with vegetables.

Drink. — Brisk cider or perry; sherry, Port, or claret wine; rum or brandy, diluted with water.

The properties of the various articles of diet are noticed under their respective heads, in the author's *Dictionary of Domestic Medicine.*

OF DRINK.

Drink is that supply of liquid which the body requires to repair its fluid parts; and the necessity for this supply, as well as its quantity, are both pointed out by a certain feeling which the want of it excites, named *thirst*. From the purpose that drink is naturally designed to serve, the liquid composing it should be of the simplest and most diluent kind. Hence water is the drink of all animals, and also of man in his natural state. But, along with refinement, this part of aliment, as well as food, has changed the simplicity of its nature; it has become impregnated with a variety of foreign matters, which stimulate and disorder the system; and thus, instead of answering the original intention of nature, as a pure elementary fluid, in allaying thirst, it is formed only to please the palate, and to create a desire for the enjoyment of it, beyond what either nature requires or reason approves. Drinking, or rather dilution, which is a term that more properly applies to this part of the subject, we find indispensably necessary to the support of animal life. By it alone, life can be maintained for a certain time without food, — a proof that it is even more essential than food itself. The use of it, however, like that of food, requires certain regulations; and we are more apt to exceed in the proportion of drink than of food. There are many people, however, who are known never to drink at meals, the time when dilution is perhaps most necessary, and even rarely to do it on any other occasion: this is a practice by no means to be commended; but the other extreme, which is so common, should be equally avoided, on account of its weakening the digestive organs. Drink, besides the supply of fluid to the system at large, in the first instance, materially promotes the solution of the food, and expedites its passage from the stomach, and its conversion into chyle; it then assists the union of this part with the other animal fluids already formed, and by giving fulness and tension, increases the activity of the general circulation.

Thus it promotes the formation of blood and gives vigour and supply to the different secretions. How to employ or use drink properly is a subject of the first importance, and in our conduct respecting it we must be directed by the several circumstances of the nature of our food, of the state of the season, and of our mode of life; while even the particular time also of using it, in regard to meals, as well as those restrictions specified, merit an equal share of attention. On the nature of our food, we may take notice that the drier it is, either from its quality or form, the greater proportion of drink it requires: animal food demands, of course, a greater quantity of drink than vegetable food. But in all cases the drink should exceed the proportion of food: this some authors have endeavoured to limit, by stating that the proportion of liquid should be double to the proportion of dry aliment. But this will never be accurately observed, for every individual will be much regulated by inclination and habit in this respect. One thing, however, is clear; that animal food requires a greater proportion of drink than vegetables, and that water is the best beverage to conjoin with both, from its less disposition to produce acescency. The state of constitution determines a good deal our natural appetite for a large proportion of drink. Thus the phlegmatic habit has less inclination to drink than those of the sanguine and choleric temperament. Women also have less calls from thirst than the other sex; and youth, in the same manner, less than manhood or age. The influence of the season regulates likewise the appetite in a material degree; excessive heat calls for a large supply of liquid, by increasing the evaporation from the surface of the body, and it suspends also in some measure the activity of the gastric secretion, as the desire for solid food becomes considerably diminished: thus the inhabitants of warm climates eat little in proportion to those of colder regions; but they require a constant supply of liquid, and their desire for this knows no bounds. On the other extreme, the natives of a cold country possess a keenness of appetite for solid food, which, unless very dry and compact, seldom excites much inclination for liquids. Hence, it is more from their pleasing the palate, than from their diluent nature, or from the real call of thirst, that much consumption of drinks in cold regions takes place. The way of life, the last circumstance taken notice of, must considerably affect the desire for drink, and that much in the same manner as the influence of the season: thus the laborious, from their exertions, keep up an increased evaporation from the body, and require a much larger use of drink than the sedentary and inactive; and according, therefore, to the degree of exercise of the individual at different times, will the call for drink be greater, and the ne-

cessity also for an increased supply be proper. The suitable time for drinking, with respect to meals, is a part of the subject that next requires consideration. A desire for drink is generally one of the first calls we have in the morning, and this will be properly gratified with a glass of cold water, which will give a vigour and tone to the stomach, and prepare it for the approaching meal; it will also tend to remove any viscid phlegm which may be collected in it, and which may vitiate the appetite for the morning's repast: at first, however, the feeling communicated by this beverage will be disagreeable; but if continued for a few times, it will prove a refreshing and agreeable relish. Drink before a meal has been objected to by some writers; this, however, like every general maxim, must be regulated by circumstances: if the stomach be strong and active, it will do no injury in lessening the appetite; if the stomach, on the contrary, be weak and relaxed, some indulgence of this kind may be proper in the way of cordial, to excite its languid action, and invigorate it for the approaching reception of food. The same objections have been applied to drinking at the time of meals, and no doubt it is intended by nature that the appetite for food should first be satisfied, before a supply of drink becomes necessary; at the same time, drinking cannot be avoided to a certain degree, and especially in warm weather, when the stomach is languid, and the nourishment taken is not sufficiently stimulating to keep up the process of digestion: a moderate portion of drink, therefore, may at all times be conjoined with our meals. But it should be chiefly with a view rather of nourishing than repressing appetite, and therefore ought to be of a stimulating nature, as a glass or two of wine, and it should also be in such small quantities as not to affect materially the distension of the stomach, or prevent the organ from receiving the proportion of nourishment it requires. Hence, liquors of an inferior degree, or a diluent nature, should be rather used to close the repast than to interrupt the meal. When drink is used at any intermediate time between meals, the propriety of joining it with some solid food has been inculcated by many authors. But thirst and hunger are two different sensations, and the supplying the former does not necessarily interfere with the latter: in certain cases, indeed, where an immoderate use of stimulant liquors is the consequence of a depraved mode of life, the bad effects of this practice may be somewhat lessened by such a plan of procedure. Drink, however, when left to choice, should only properly succeed a meal, and be called in to assist the progress of digestion: it should consist, therefore, chiefly of the most diluent kind, and should be taken only in small quantity, as the exertion of the stomach seems to require assistance. On the whole, from what has been

pointed out, though drink is a necessary and essential part of aliment, it should never be carried too far, either in respect to its quality or proportion. Though not so hurtful as an excess of food, yet its immoderate indulgence weakens the stomach and bowels; instead of promoting it retards digestion, and by an improper dilution, makes the food pass off too quickly. Hence the mass of blood is probably thinned by it, from wanting the due proportion and consistence of its parts; and in general, debility of the body ensues, distinguished by universal relaxation, and too copious a discharge of the different excretions. But on the other hand, though it is rare, a rigid abstinence from drink is improper: by this error the solution of the food becomes incomplete, and digestion is too much impeded.

No article of diet is more injurious to health than tea when taken warm. It relaxes the stomach, its peculiar chemical property debilitates the nerves, and when the infusion is strong its baneful effects are extended to the brain, and consequently to the whole nervous system. On distillation of tea, an essential oil is obtained, one drop of which is capable of destroying life. To the free use of tea, coffee, and malt, the general prevalence of indigestion and bilious complaints is more attributable than to any other article. (See INDIGESTION.)

OF CLEANLINESS.

Cleanliness consists in the removal of every impurity from the body, whether generated by itself, and attached to the substances surrounding it, or merely affecting it by accidental contact. The ablution of the different parts of the body, as the head, face, and mouth, also the hands and feet, is necessary at least once a day; but the propriety of washing the whole surface of the body oftener than once a week, either with warm or cold water, is much to be questioned. The perspirable matter of the body is not, as was formerly supposed, an excrementitious secretion, but a very pure watery fluid, for the purpose of keeping up an evaporation for regulating the temperature of the body. (See Use of Perspiration in the Introduction to the second part of this work.) Much mischief is often done by the exposure of the body during general ablution, and many lives are annually destroyed by the consequences. After the age of fifty, the warm-bath once a fortnight is very beneficial to health, and an excellent preventive of organic disease of the stomach, liver, or intestines, which is apt to take place after that period of life. (See Baths, in the Author's Medical Dictionary.) The mouth should be rinsed out after every meal, as the fibres of meat are apt to lodge about the teeth, and in consequence of the heat of the parts, rapidly putrefy, and in this state it will act on the teeth and gums,

so as to occasion caries and tooth-ache. The breath also, from the same cause, is apt to acquire a disagreeable taint. In cleaning the mouth, the tongue and throat should not be forgotten; the former should be done every morning with a piece of whale-bone; after it, the throat should be regularly gargled several times with fresh water. In cleaning the mouth the chief attention has been generally paid to the teeth, and for the removal of the tartar or crust, which is apt to form on them. Every day brings forth a new remedy, either as a preventive or cure of the tooth-ache, &c.; the treatment of the teeth, however, should consist simply of washing or rubbing them with the finger, and joining occasionally to it some substance of a mild nature, as the areca charcoal, to separate the tartar: all stronger applications are to be used with much caution, for in proportion as they produce cleanliness of surface, they injure the enamel and destroy its texture. Tooth-picks are injurious, as loosening the teeth, and producing a recession of the gum. (See Prepared Charcoal, and Tooth-ache.) Attention to the feet is no less necessary than to the parts we have noticed. Their discharge, acted upon by heat and friction, as in warm weather, and after much walking, produces the most noxious and disagreeable smell. They should, therefore, be frequently bathed.

Where a habit of cleanliness is once established, no rules will be necessary, as the feelings of the individual will sufficiently point out to him what is proper in this respect. The frequency in the change of dress, the other part of cleanliness we noticed, must be entirely regulated by the materials worn, by the state of the season, and by the situation of the patient; no maxims, therefore, need be offered here, as every individual can easily judge for himself on this head. In the warm climates, an attention to it is carried so far, that people are in the habit of shifting twice a day: indeed, if articles of dress are once soiled, and next the skin, there is danger of absorption of their noxious matter, and their renewal, therefore, cannot be too speedy.

In cases of typhus or putrid fevers, general ablution of the body with cold water or vinegar is certainly very beneficial, and most grateful to the feelings of the patient, and also a change of linen; but by washing the rooms of invalids, and often by changing the bed-clothes, considerable injury is frequently done, particularly in cases of eruptive fevers, inflammatory affections of the head, throat, lungs or bowels, and rheumatism. The object of ablution, is to remove offensive matter that may be absorbed from the surface of the body, or contaminate the air. The perspiration of the body is an inoffensive secretion, and the dirt of a floor may be as effectually removed by brush without the aid of water as with it. In a hot climate, the use of

water may, however, prove useful, by cooling the atmosphere of the chamber.

TEMPERANCE

Is the moderate use and enjoyment both of the necessaries and luxuries of life; but here it particularly relates to what we eat or drink. It is one of those virtues which, of all others, has its own reward, for health and length of life are most frequently its attendants. Man, however, is less than any other animal inclined to observe its rules; and instinct in the brute creation, which regulates their conduct, is found superior in this respect to the boasted reason of man. Temperance is especially necessary in the case of every invalid, whose constitution is either habitually weak, or rendered so by previous disease. Temperance, in such situations, has often been known to work miracles, and to have protracted life without inconvenience, nay, even with comfort and pleasure, to a very advanced stage. Of this, the most remarkable instance is afforded in the celebrated Venetian, Carnaro. Another, and recent instance of the same kind, is offered in the celebrated Professor Black, of Edinburgh, who, though seized with a spitting of blood in an early period, by a proper attention to his mode of life, protracted it, with much utility to mankind, to a very advanced period.

But though example is ever superior to precept, in the present instance it will be best to accompany this article with a view of the effects of temperance and intemperance, on the conduct and constitution of mankind, as ingeniously presented at one view by Dr. Lettsom, in his *Moral Thermometer*, published in a small tract, entitled, “*The bad Effects of a little Drop.*”

TEMPERANCE.

70—	WATER	Health, Wealth, Serenity of Mind,
60—	Milk and Water	Reputation, long Life, and Happiness.
50—	Small Beer	Cheerfulness.
40—	Cider and Perry	Strength, and Nourishment — when taken only at Meals, and in moderate Quantities.
30—	Wine	
20—	Porter	
10—	Strong Beer	

0—	INTEMPERANCE.			
	VICES.	DISEASES.	PUNISHMENTS.	
10—	Punch	Idleness ; Peevishness ; Quarreling ; Fighting ; Lying ; Swearing ; Obscenity ; Swindling ; Perjury ; Burglary ; Murder ; SUICIDE.	Sickness ; Puking ; and Tremors of the Hands in the Morning ; Bloatedness ; Inflamed Eyes ; Red Nose and Face ; Sore and Swelled Legs ; Jaundice ; Pains in the Limbs, and Burning in the Palms of the Hands and Soles of the Feet ; Dropsy ; Epilepsy ; Melancholy ; Madness ; Palsy ; Apoplexy ; DEATH.	Debt ; Black-eyes ; Rags ; Hunger ; Hospital ; Poor-house ; Jail ; Whipping ; The Hulks ; Botany Bay ; GALLOWS.
20—	Toddy and Crank			
30—	{ Grog, and { Brandy & Water.			
40—	Flip and Shrub			
50—	{ Bitters infused in Spirits			
	{ Usquebaugh			
	{ Hysterick Water			
	{ Gin, Anniseed,			
60—	{ Brandy, Rum,			
	{ and Whiskey, in			
	{ the Morning			
70—	{ Do. during the			
	{ Day and Night			

THE MANAGEMENT OF CHILDREN

It appears by the general bills of mortality, that no less than one-half of the children born in this country die before they attain the age of six years.*

Of late years the causes of this have been investigated, and the consequence is, that many of the vulgar errors in nursing, handed down from time immemorial, are so far abandoned, that nature and reason begin to take place of prejudice and ignorance. The calamity is chiefly to be attributed to their *being fed and clothed improperly*. That the method of nursing has been wrong, needs no other proof than the frequent miscarriages which have attended it, the death of many, and the ill health of those that have survived. The mortality of infants may however, in some degree, be a natural evil, but the majority

* The average of the bills of mortality for ten successive years, in London and its environs, demonstrates that more than one-half of the children born within their limits die under seven years of age. In Manchester and Birmingham the proportion is nearly the same, but throughout the country very considerably less. Some have estimated the death of children in London to be at least double that in the country.

of instances may be justly ascribed to neglect or officiousness; for the brute creation being guided by instinct, or the dictates of nature, seldom perish until they have run their natural course, while man, the child of art and refinement, proud of his superior mental attainments, is very liable to err.*

OF THE CLOTHING OF CHILDREN.

The first great mistake arises from the prejudice of nurses, in overloading and binding children with flannels, swathes, stays, &c. which render a healthy child so tender and chilly, that it cannot bear the external air †: and if by accident it should be exposed to a refreshing breeze, the consequence is frequently a serious inflammatory affection of the lungs or bowels; or if the child should survive the first month, it is then sent into the country, to be reared in a house that admits wind and air from every quarter! Now, a new-born infant, being *naturally warmer* than an adult, requires in proportion less clothing, which should be put on so loose, that the bowels may have room, and the limbs liberty to act and exert themselves, that the circulation of blood, through the *superficial* vessels may not be impeded, or malformation or unnatural swellings be produced by *partial* compression. To the latter are doubtless attributable the many distortions and deformities ‡, particularly among females, who suffer more in this respect than males. The great pleasure a child manifests on being divested of this superfluity of dress, by all its powers of expression, one would suppose sufficient to convince nurses, were they capable of making just observations, that the free use of its muscles is more agreeable to its feelings, as well as necessary for its growth and strength.

A flannel waistcoat, *without* sleeves, made to fit the body, and tie *loosely* behind, with a petticoat §, and over this a kind of

* Whatever may be the advantage of modern refinement to society, the life of man is certainly abridged by it; for uncultivated man is not only exempt from a number of diseases to which the civilized world is subject, but rarely dies till he has arrived to the limited period of his existence.

† The clothes of children should, in all cases, be proportioned to the climate and temperature of the atmosphere.

‡ The negro children in the West Indies are suffered to lie and tumble about on the floor from their earliest infancy in a naked state; and notwithstanding the hardships they undergo at every period of life, there is scarcely a deformed negro to be seen amongst them; — a convincing proof that the *pressure* of clothes is a means of producing deformity, when we see on the other hand so many victims to it in this country.

§ In putting on the petticoat, great care should be taken not to confine

gown — both of the same thin, light and flimsy materials — (the petticoat should not be quite so long as the child, the gown a few inches longer) — with one cap only on the head, and the linen as usual, I think abundantly sufficient for the day, laying aside all swathes *, bandages, stays, and the contrivances that are most ridiculously used to close and keep the bones of the head in their place; the latter of which, by confining and compressing the brain, have no doubt been productive of very serious mischief to that organ, and by keeping up irritation in it, may often produce that formidable disease commonly called Watery Head. Shoes and stockings are likewise *unnecessary* incumbrances; the latter keep the legs wet and dirty, if they are not changed two or three times a day, and the former too often cramp and hurt the feet, so as to prevent the child learning to walk. Children in this simple dress would be *perfectly easy*, and enjoy the free use of their limbs † and faculties. They should be put into it as soon as they are born, and continued in it till they are three years old, when it may be left off for any other more genteel and fashionable. They ought to be changed at least every day, to keep them free from sourness, which is prejudicial to the tender state of infancy. The night-dress should be only a *loose* flannel shirt, and less in quantity than that which is worn during the day, otherwise the child will be very liable to be affected with cold and complaints of the bowels. — Tape should be used instead of pins in putting on their napkins.

the motion of the ribs. The bones of the chest are very tender, and the least pressure will produce distortion. The bowels of a child after two years of age, and some at an earlier period, require to be gently supported, and for this purpose a fine thin flannel waistcoat will answer best. It should be made to lace behind from the bottom upwards. The intention of this waistcoat is merely to support the bowels, so as to prevent the relaxation and obstruction of the viscera, which often take place in weakly children, and predispose them to rickets and bowel complaints. Beneath the laced part there should be a slip of flannel to defend the skin, which at the same time will support the back-bone.

* It sometimes happens that a portion of intestine protrudes at the navel, through violent crying; in this case, a plaster of diachylon of the size of a dollar may be applied to the part, and over it a *soft broad* piece of thin flannel, in the form of a roller. If the bandage be applied tight, it may not only hurt the bowels, but produce rupture at the lower part of the belly.

† The unnatural custom of confining the limbs of a child during night cannot be too much reprobated or guarded against by parents: a simple contrivance to confine the hands, in order to prevent the child from rubbing or scratching its eyes, is often necessary; but the confinement of the legs should on no account be allowed.

OF THE FEEDING OF CHILDREN.

In the feeding of children, great care should be taken that their food be wholesome and good, and that it be given in such quantity only as the body requires for its support and growth. In the business of nursing, as in physic, we should endeavour to follow the dictates of nature. When a child is born, it is full of blood and excrement; and it requires some intermediate time of abstinence and rest to compose and recover it from the effects of the pressure it may have sustained in the birth; as well as the slight fever arising from the revolutions it undergoes after delivery. If the child has sustained no injury, it will soon fall into a sound sleep of six or seven hours, when it will awake refreshed and hungry. It should then be put to suck *: if there be no milk, the sucking of the infant will in a few hours infallibly bring it; and if nothing else be given, the child will grow strong, and the mother perfectly recover in a few days. The general practice of forcing down a child's throat, as soon as it is born, a lump of butter and sugar, or a little oil and syrup, with a view to cleanse the bowels, is exceedingly pernicious.† The mother's *first* milk is of a purgative nature, and

* If the nipples of the mother be short, which is generally the case with the first child, they should be first drawn out by the nurse; and in case of being tender, it will be proper to wash them with a little brandy instead of the poisonous preparation of lead, recommended by quacks and officious nurses. If the mother has small, tender, or ulcerated nipples, the prepared nipples (the teats of calves) will enable her to give suck with great comfort. These nipples are very delicately prepared by Messrs. Savigny, and, with care, will last many years. I have, in many instances, found them to answer when the mother, through ulceration or total deficiency of nipple, could not otherwise have suckled her infant. The ease and advantages they afford are so very considerable and important, that it is much to be regretted they are not better known to the faculty.

Another frequent obstacle to suckling is inflammation of the gland of the breast, to which young mothers are very subject. The object in the treatment of this often very painful affection is to prevent suppuration or the formation of matter, by the application of leeches to the part, and the discutient lotion, No. 102. (without camphor), and the occasional use of an aperient dose of jalap or castor oil. The milk should be drawn off very gently by the nurse or child. In consequence of the increased determination of blood to the breast, and the irritation kept up in it by its office of secreting milk, the inflammation generally advances to suppuration in spite of all our efforts to prevent it. When this is the case, a poultice of linseed powder should be applied and continued till the part has healed. After the abscess has broken, the inflamed skin may be washed with spirit of wine or brandy twice a day, and the ulcer or opening covered with lint. Ointment is seldom necessary.

† A lady of respectability in the city of London had nearly lost her infant, through the nurse giving it, soon after it was born, a table-spoonful of water,

cleanses a child of its excrements, without griping or disordering the stomach and bowels; indeed, such is its gentle aperient property, that no child can be deprived of it without manifest injury.* By degrees, the milk becomes less purgative, and more nourishing, and is unquestionably the best and only food the child likes, or ought to have, for *at least three* months. The call of nature should be waited for, to feed it with any thing more substantial; and the appetite always precedes the food, not only with regard to the daily meals, but those changes of diet which increasing life requires.

I am well convinced that nine in ten of the diseases of children may justly be imputed to the mistakes of nurses, in the quality and quantity of food. With respect to quantity, it is a most ridiculous error to suppose, that whenever a child cries, it wants victuals, and thus to feed it twelve or more times in the course of a day and night. If the child's wants and motions be *diligently* and *judiciously* attended to, it will be found that it seldom, if ever, cries but from pain. Children no doubt suffer very acute pain from spasms, in consequence of the over-distention of the stomach by food; the nurse, notwithstanding, in order to pacify it, will persist in forcing down its throat fresh quantities; or otherwise, with the same view, it is put to suck, which will often relieve it by producing vomiting. If the stomach be frequently supplied with food, or be overloaded, it is impossible the whole can be properly digested; and hence, by undergoing fermentation, a quantity of air is disengaged, and acidity generated, which, by producing spasms and irritation in the stomach and intestines, give rise to inward fits, convulsions, and not unfrequently inflammation of the bowels. The sensation of hunger being unattended with pain, a very young child will make other signs of its wants before it will cry for food. If it be healthy and quite easy in its dress, it will very rarely cry at all. Children that are fed only four or five times in twenty-four hours, are more healthy, active, and cheerful, than those who are never suffered to be hungry. The great fault in the quality of the food, is its not being simple enough. The addition of spices and wine to their pap, gruels, and panadas, is unnecessary; they were first only introduced by luxury, to the great destruction of the health of mankind. A child should not be

in which the end of a red-hot poker had been put for a few minutes: this was done, as she stated, to prevent the thrush.

* If the infant has been deprived of the first milk by any untoward occurrence, a little oil of almond or fresh castor-oil may be given for the purpose of emptying the bowels.

kept entirely on vegetable food, on account of its tendency to fermentation in the stomach, and to the consequent production of an acid and air which are the exciting causes of many diseases. Man being partly carnivorous, his offspring should not be entirely deprived of animal food, which corrects the acescent quality of vegetables.* The mother's milk, when good, appears to be a mixture of vegetable and animal properties; in the due proportion of which consists that salubrity of aliment our nature seems to require. I would advise, therefore, that one-fourth of their diet be *thin* and *light* broth, free from fat, with a little arrow-root, bread, or rice-flour. The admixture of animal jelly with that of the arrow-root, recommended under the head of arrow-root, is likewise an excellent combination for weakly children. If this combination should prove too heavy, or if the child should refuse thick food, asses' milk may be substituted for it. (See Arrow-Root.) The other part of children's diet may be a little toasted bread, or tops and bottoms, boiled with a little water, almost dry, and then mixed with *fresh* milk, *not* boiled, the properties of the milk and its taste being much changed by heat. This, *without* spices, or any other pretended amendment whatever, will be perfectly light and wholesome. A sucking child may be fed twice a day at first, and not oftener; once with the broth and once with the milk thus prepared, in quantity just to satisfy its hunger. Children should always be fed in a sitting posture, that swallowing may be more easy to them. If a child be not accustomed to feeding at night it will not want it, but get into a habit of sleeping all or most part of the night very quietly, only waking when its napkin requires to be changed. It is night-feeding that makes children so over-fat and bloated. At the end of twelve months, the child should be weaned by degrees, that it may neither feel nor fret for the want of the breast.

When the bowels are very irritable, a small quantity of lime-water, as a tea-spoonful or two, may be added to the article of food three times a day. A lady of Yorkshire in the ninety-first Number of the *Gazette of Health*, states that this addition, simple as it may appear to be, rendered three weakly children very healthy, and that she has found it an efficacious preventive of rickets.

* When this acid corruption of food predominates, which is obvious from *crude*, *white*, or *green* stools, gripes and purging, a little magnesia, or lime-water (see *Magnesia*), in mint-water, will prove the best remedy; but if attended with *much pain* in the bowels, known by the child's kicking and drawing up its legs, the absorbent mixture will prove more serviceable than magnesia alone.

Strong liquor of all kinds should be scrupulously avoided. The custom of giving a child spirits in its food, or in the form of toddy, with the supposed view of preventing gripes, is very pernicious. Such liquors, although well diluted, applied to their tender digestive organs, must unavoidably impair their functions, and may lay the foundation for a train of the most dangerous complaints. It has been urged in favour of this horrid, unnatural practice, that many children, accustomed to a little spirits for a few days after birth, continue to thrive uninterruptedly; but such arguments only tend to prove that the vigour of constitution in the children was so great as to resist the usual effects of strong liquors.

Were this plan of nursing literally pursued, the children kept clean and sweet, tumbled and tossed about, played with and kept in good humour, and carried out every day when the weather admits of it, I am confident in the course of eight or nine months most children would become healthy and strong, and able to sit without support; to divert themselves an hour at a time, to the great relief of their nurses; would very readily find the use of their legs, and very soon shift for themselves. By this method of nursing, likewise, *hereditary* diseases may be suspended, and in course of time every taint and infirmity, the king's evil and insanity not excepted, may be worn out.

It is a duty incumbent on parents to have their children nursed under their own eyes, and to make use of their *own* reason and senses in superintending and directing the management of them; and that of the mother to *suckle her infant herself*; if she be healthy, it will confirm her health; if weakly, it will, in most cases, restore her.* It need be no confinement to her, or abridgment

* The luxuries which modern refinement has introduced in the manner of living, although they may not prevent every woman from being a mother, certainly render many very unfit for the office of a nurse; but when the mother is of a strong constitution, she is unquestionably the most proper nurse, and ought to be advised to undertake the task on account of her own health as well as that of her infant. When the milk of a brute is employed, that should be adopted which approaches nearest to the human. The milk of women is more light and thin, and contains a greater proportion of sugary principle, than that of any other animal. Ass's milk, in these respects, approaches nearest to woman's, and next to it the mare's, then the cow's, and then the sheep and goat's.

Women predisposed to consumption are the most prolific, and during gestation the disease of the lungs is generally suspended. When a consumptive lady is delivered, it is often a difficult point to determine whether she should suckle her infant or not. On account of the emaciation and weakness of the mother, most medical men suppose that suckling will hasten the progress of the disease; but so far from this being the case, I have uniformly found

of her enjoyments, as three or four times in twenty-four hours will be often enough to give it suck. It may be fed and dressed by some reasonable servant, that will submit to be directed, and with whom it might likewise sleep. No other woman's milk can be so good for her child. *Dry* nursing is not only *unnatural*, but the most dangerous method of all; for not one child in six, thus brought up, lives a year.

OF THE EXERCISE OF CHILDREN.

All our care in the feeding and clothing of infants will not succeed, till, by due degrees, a child is brought to bear a good deal of exercise without fatigue. It should be pushed forward and taught to walk as soon as possible, so that at the end of twelve months it may (if healthy) be capable of walking alone. It is a vulgar error to suppose children are not to be put on their legs, because they are weak or the least bent or crooked; daily experience shews crooked legs will grow, in time, strong and straight by frequent walking *, and that disuse makes them worse. The walks should be gradually increased every day, till they can go two miles without weariness, which they will very well be able to do in three years if they be accustomed to it properly. From this daily exertion, they will, from the impulse of their own active vigour, soon be found running, leaping, and playing, all day long. Thus a dull heavy child may be made playful and sprightly, and a weakly one healthy and strong, and confirmed in good habits and permanent health.

There are other little niceties, which, were they observed in the nursing of children, would be of some service to them — such as making them lie *straight* in bed; I do not mean extended like a corpse, but that their limbs may be *free* and *easy*.

suckling to relieve the affection of the lungs, and to improve the general health. When the appetite is good, I would advise a consumptive mother, however emaciated or reduced the system may be, to suckle her child about two or three times in twenty-four hours, as the most likely means of restoring her to health. (See CONSUMPTION.)

It is worthy observation, that those mothers who have neglected to suckle their offspring are most subject to cancerous complaints of the breast and womb, and consumption of the lungs.

* Every member in a state of health acquires strength in proportion as it is exercised; and children, by being accustomed to support themselves, will soon acquire strength for that purpose. When, however, the limbs are curved, the bowels much enlarged, and the child evidently disposed to rickets, the legs may not be equal to the support of the body. In this case, the child should be supported when put on the legs. Rolling or lying on the floor is a healthy exercise, while sitting is generally hurtful. (See RICKETS.)

They should be taught to use both hands alike; for employing one more than another * will make that hand and side of the body bigger than the other, and is often the cause of crookedness; neither should they be always laid on the same side, nor carried constantly on the same arm. It would likewise not be amiss to forward their speaking plain, by repeating easy distinct words to them, instead of the jargon generally made use of by nurses.

Dr. Hamilton condemns the use of cradles for children, on account of their being *improperly used* by nurses. This author recommends a crib, to be so constructed as to be fixed to the side of the bed during the night, and to be easily carried from one room to another in the day-time; it must not be made to rock. In *cold* weather, however, the infant ought not to be allowed to sleep by itself, as heat is absolutely necessary to keep up the vital functions of a *very young* or *weakly* infant.

“ By arts like these
Laconia nursed of old her hardy sons,
And Rome’s unconquered legions found their way,
Unhurt through ev’ry toil, in ev’ry clime.”

INSTRUCTIONS FOR THE CHOICE OF A WET-NURSE, &c.

A wet-nurse should not only be clean, healthy, sober, and temperate, but likewise middle-aged, because at this period she will have more milk than the very young, and more and better than the old. Regard should be had to the time of their lying-in, and those procured who have not been brought to bed more than three months; for nature intending that a child should suck only twelve months, the milk seldom continues good much longer: about that time, women, though they give suck

* On this absurd custom of parents and nurses, a late author observes, “ Great pains are generally taken by mothers that their children should not be *left-handed*, by which injudicious anxiety they are prevented from the full use of that member. Nature has given us two hands alike in form, equal in strength, and equally calculated for exertion; but by the present practice this gift is in a great measure abandoned, and one of them comparatively rendered inefficient. Were the same trouble taken to make children use only their right eye, the consequence to the left eye would be exactly similar. If, therefore, I have the good fortune to persuade sensible mothers to amend this universal error, I shall enjoy the satisfaction to think that I have in no small degree contributed to the good of society. I would recommend that children, from their earliest infancy, be habituated indiscriminately to use both hands, to alternate them in all their little manual occupations, and when sufficiently grown, they should be encouraged to cut their meat, and employ their exertions with either hand.” This author recommends the arms to be exercised by swinging the dumb bells: but this exercise I have known to produce deformity: riding on the rocking-horse is far preferable.

are also apt to breed again; and some that are very sanguine much sooner; which, and other periodical causes, disturb and affect the milk greatly; and therefore they are not proper nurses so long after their delivery.*

The nurse's food should consist of a proper mixture of flesh and vegetables: she should eat one hearty meal of *unsalted* meat every day, with a great deal of vegetables, and little bread, and thin broth or milk for her breakfast and supper, and her drink should not be stronger than good ale or porter.

If the child has not sucked its own mother, it should have a little purgative physic in a day or two after its birth, to carry off the long-hoarded excrements: for this purpose, a little manna may be given it, dissolved in water: or the nurse may take a little lenitive electuary, which, through the medium of the milk, will act on the bowels of the child: by these means, three or four stools should be procured in twenty-four hours.

The child should be kept awake by day, as long as it is disposed to be so, and great care be taken that no anodyne quack medicine be given, or means taken to lull or rock it to sleep, or to continue it asleep long, which is too much the custom of wet-nurses, to save themselves the trouble of exercising it, to the great detriment of the child's health, spirits, and understanding. If the nurse has another child to support with her own milk, the sooner the child is fed, according to the method I have recommended, the better, as it is not likely she should have milk enough to support two.

As soon as the child has cut two teeth, it may be used to the inside of roasted meat, which it will be more fond of than confectionary or pastry wares, the latter of which only debauch its taste and disorder the stomach.

OF THE DISEASES OF CHILDREN.

Having observed that the first and principal cause of almost all diseases that assail us during childhood is the acid corruption of the food, and it being easier to prevent diseases than to cure them, it will not be amiss to mention in this place a certain preventive, if given in due time.

On the first appearance of predominating acid, which is

* From chemical experiments, it appears that the milk of a woman varies at certain stages of suckling. If this fact, therefore, be duly considered, how important is it that this nourishment should agree with the child both as to age and its specific quality? This circumstance forcibly points out the propriety of a mother's suckling her own offspring where health admits of it.

evinced by curdled, white or green stools, gripes, and purging, five grains of magnesia, No. 1, combined with two grains of rhubarb powder, No. 26, should be given in a little mint-water, or the prepared natron, as directed, No. 60, which will correct the sourness more effectually than prepared chalk, or the Gascoign ball, so generally employed by nurses; and instead of producing a costive state of the bowels, the certain consequence of these cretaceous absorbents, the magnesia and rhubarb, or prepared natron, will gently carry off the offending matter, and at the same time strengthen the stomach and bowels. If the purging, however, should continue excessive during the use of either of these medicines, the absorbent mixture, No. 73, may be substituted; and provided that should not restrain it, the cretaceous mixture, No. 64, will be necessary. (See LIME-WATER.) If the child be supported entirely by the breast, the mother should live more on animal food; and if it be allowed spoon-meat, it should be the vegetable and animal combination mentioned under the head of Arrow-Root. By the *early* employment of these remedies, many complaints may be prevented, which, from neglect, grow from bad to worse, and too often end fatally.

OF INWARD FITS.

The first symptoms of the disturbance of the general health termed inward fits, are, an appearance of being asleep with the eye-lids a little open, frequent twinkling, with the eyes turned upwards; the muscles of the lips affected with a tremulous motion, producing something like a smile, and sometimes almost the appearance of a laugh. As the disease advances the breathing becomes interrupted, and appears now and then to stop a little, with a considerable fluttering at the heart, and intermission of the pulse; the nose becomes pinched; a pale circle encompassing the eyes and mouth, often livid, and at times disappearing entirely. The child at length becomes so irritable and nervous, that it starts at the least noise; it will then sigh, and discharge wind, which affords a temporary relief, and presently relapses into a dozing. Sometimes it struggles very much before the wind is expelled; then vomiting, or a loud fit of crying, sets all right again. As the child advances in age, these fits generally go off by degrees spontaneously; or, by mismanagement in its diet, grow worse, and are succeeded by fever or thrush; or end in vomiting, or sour, curdled, and green stools, and convulsions of the whole body.

Dr. Armstrong imputes this disease to a quantity of mucus squeezed out of the mouth of the glands and fauces, by the

contraction of the muscles, and pressure of the nipple in the act of sucking, which, with the addition of the mucus of the gullet and stomach, mixing with the milk, renders it of a slimy consistence, by which means it is not readily taken up by the vessels for the nourishment of the body; and as there is in most children an acidity in the stomach, the milk is thereby curdled, which adds to the load; hence sickness and spasms are produced, which, by sympathy, being communicated to the gullet and fauces, occasion the convulsive motions enumerated above. Other authors who coincide with the Doctor in this opinion, think that they are aggravated, if not produced, by air swallowed with the milk during sucking, which, however, is more likely to be generated in the stomach than taken with the milk; nor can they be attributed to a corrupt or vitiated state of the saliva, inasmuch as almost all children are more or less affected with them. Besides, if the Doctor were right in imputing the disease to the mucus swallowed during *suction*, children that are brought up by spoon feeding would be free from it, whereas they are most subject to it.

This complaint is produced by overloading the stomach with food, which, in consequence of being acid, excites considerable irritation in the bowels. The mechanical distension of the stomach at the same time co-operates in producing spasms, which extending to the diaphragm, heart, and lungs, may occasion sudden death.

The acid matter formed in the stomach, by irritating its internal surface, and that of the intestines, produces the disease termed thrush or aphthæ, which I have found more or less to exist throughout the intestinal canal of those infants I have had an opportunity of examining after death.

The cure will, of course, depend on avoiding the occasional cause, and by emptying the stomach and bowels by gentle emetics and the use of calomel, No. 34, or basilic powder, No 36. In case of violent purging, or gripes, the cretaceous mixture, No. 64, will also be necessary: and the warm-bath, or a blister on the chest, if the breath be affected. The almond emulsion, made with lime water instead of water (see Almond Emulsion in the Appendix), is not only an excellent beverage, but also the best medicine if the bowels appear to be in fault, and if the system be feverish. Spirit of hartshorn, sal volatile, tincture of assafoetida, and other *stimulating* antispasmodics, so frequently prescribed in these cases, generally aggravate the symptoms by irritating the stomach and bowels.

In cases of inward fits, and especially if the thrush appear in the mouth, the infant should be supported entirely by the breast; and if the mind of the mother be disturbed by the affliction of

the child, an healthy wet-nurse should be procured as soon as possible; for if the irritation be kept up in the stomach many days, the nervous system of the child will be greatly disturbed, and a state of body produced which will re-act on the complaint, and render its recovery very doubtful.

OF CONVULSIONS OF CHILDREN.

Children are very subject to convulsive fits, from the great degree of irritability of the nervous system. Convulsions originating from a variety of causes, and, of course, requiring different treatment, a practitioner of skill and experience should always be consulted on their *first appearance*. When they are occasioned by teething, they are less dangerous.

In all cases of the convulsions of children, great attention should be paid to the state of the stomach and bowels; if they appear to be in fault, the basilic powder, No. 36, will prove of considerable advantage, and often effectually cure them. If they arise from difficult dentition, small doses of liquid laudanum, after the due operation of the basilic powder, will be proper. (See Dentition.) If they are attended with a determination of blood to the head, or that chronic inflammation of the membranes of the brain which precedes the disease termed watery head, blisters to the head and feet, the application of leeches to the temples, and an active purgative, are necessary. If the forehead be hot, cold water should be applied to the head by means of a napkin three or four times a day; this, both in convulsions and inward fits, is an important remedy.

The convulsions of children are generally symptomatic of some local irritation, as cutting of the teeth, worms, bad digestion, &c.

OF DENTITION, OR THE CUTTING OF TEETH.

Children who are properly fed and exercised generally cut their teeth without any inconvenience; while the systems of those who are over-fed, and not sufficiently exercised, are more or less disturbed by this simple operation.*

The period of teething generally commences between the fifth and tenth month †, and the process of the first set, which consists of sixteen, continues for nearly two years.

* Hereditary diseases, which might otherwise have lain dormant, are frequently put into action by the irritation and fever attendant on dentition: hence the first appearance of coughs, rickets, and various forms of scrophula, may be traced to this period. Teething may, therefore, be considered a very critical time of the life of a child.

† Children are sometimes born with teeth, but they seldom or never last long.

The bad symptoms that occur during this operation of nature are — restlessness, frequent and sudden startings, especially in sleep, costiveness, and sometimes violent looseness, fever, or convulsions. In general, those children breed their teeth with the greatest ease who have a moderate laxity of the bowels, and a plentiful flow of spittle. A costive state of the bowels, as tending to increase the inflammatory disposition of the constitution, should be guarded against, by giving occasionally a little magnesia and rhubarb, or senna (See No. 50.); and when excessive looseness occurs, it should be moderated by a mixture with lime-water, No. 64, or two drops of laudanum, No. 31, in a little mint-water, to which six or eight grains of the cretaceous powder, No. 29, or prepared chalk, may be added, if very violent; and if the skin be dry, and the child feverish, one grain of ipecacuana will prove useful, by producing perspiration. Laudanum, in small doses of one or two drops, is a very important remedy in this instance; and by diminishing the general irritation of the system, will prevent fever and convulsions. If its frequent exhibition produce a costive state of the bowels, a little magnesia should be given with it, and the cretaceous powder omitted. (See DIARRHŒA.)

As children about this period are generally disposed to chew every thing they can get into their hands, they should always have something to play with that will *yield* to the pressure of their gums. The Indian-rubber, or elastic gum, secured round the end of a rattle, I have found for this purpose to answer best.* The repeated muscular action, occasioned by the constant biting and gnawing of such a substance, will increase the discharge from the salivary glands, while the gums will be so forcibly pressed against the advancing teeth, as to make them break out much sooner, and with less uneasiness than would otherwise happen. If these means should prove ineffectual, and bad symptoms begin to appear, the inflamed gum should be lanced; and if the tooth be so far advanced as to be *distinctly* felt beneath the gum, the incision should be made down to it.†

When the system is disturbed by teething, the treatment must, however, depend on the state of constitution. If it be of a full habit, purgative medicines, the loss of blood by leeches (from the head), the warm-bath, and a low diet, are often ne-

* The coral generally given to children at this time to bite, from its hardness, certainly renders the gums more callous, and consequently dentition more difficult and painful.

† Very superficial scarifications of the gums, when they are swollen, or very hot, often afford immediate relief, and quiet the whole system.

cessary; but when, on the contrary, the child is weakly, of a relaxed habit, or disposed to rickets, it should be supported by a nourishing diet, and a little Port wine. In this latter instance, it seldom happens that the constitution is disturbed; but when it is, it will be quieted by cordials, which, in the former case, would aggravate the sufferings of the little patient.

In children of full habits, a quantity of pure blood is often discharged from the intestines during dentition, which relieves the system, and prevents further mischief.

SWELLING OF THE BREASTS OF INFANTS.

A slight distention of the breasts of new-born infants, from a collection of whitish serous fluid resembling milk, is a very common occurrence in both sexes, and is of little consequence, unless inflammation be excited by the preposterous practice of nurses attempting to squeeze out the fluid. If the parts be not irritated by pressure, it will go off gradually, without the aid of medicine; but in case of much inflammation, a little brandy may be applied, by means of some old fine linen, three times a day. Oily applications, with friction, so frequently employed by nurses, and even recommended by some practitioners, are very improper, and never fail to produce fresh mischief.

If the inflammatory symptoms should run high, the most active means should be adopted to prevent a formation of matter, such as the application of two or three leeches, a discutient lotion of equal parts of brandy and vinegar, applied cold, and an aperient medicine (magnesia and rhubarb); as the formation of matter might not only leave an ugly scar, but, in the female, might injure the gland of the breast, so as to render her at any future period unfit for the office of suckling. If the inflammation should, notwithstanding, advance to maturation, the early advice of a surgeon should not be neglected.

INFLAMED OR SORE EYES OF INFANTS.

Inflammation of the eye-lids and eyes, especially such as are attended with a discharge of thick matter, should, in children, be considered of too great importance to constitute a part of domestic medicine, as it frequently terminates in adhesion of the coats of the eyes, and thus occasions permanent blindness: the advice of a surgeon should be taken in the first instance, while there is a prospect of its being attended with advantage.

A small blister behind the ear, or to the nape of the neck, a leech to the eye-lid, the basilic powder, No. 36, or calomel, No. 34, and the continued application of a lotion made by dissolving two grains of white-vitriol, and half a grain of blue

vitriol in four ounces of water, will often succeed in curing the most obstinate attacks. The eye-lids should be opened, and the lotion dropped between them, as well as applied externally, by means of folds of soft old linen. If the child be of a scrophulous habit, or subject to sore eyes on taking cold, an issue in the arm will not only correct the constitution, but, by keeping down the inflammatory state of it, render the eyes less liable to inflammation. The frequent recurrence of inflammatory attacks will produce incurable blindness.

The late Mr. Ware was very partial to the following application, in cases of inflammation of the eyes and edges of the eye-lids of infants : —

Take of prepared calomel half a drachm ;
Distilled water an ounce.

After well shaking the vial he directs a small quantity to be dropped on the balls of the eyes (the lids being well opened) every night and morning. Lime-water is also highly recommended in the Gazette of Health as a lotion for this species of inflammation of the eyes.

OF GALLING OF INFANTS.

The inflammation and slight excoriations which frequently occur in the groin, between the legs, termed galling, are not only painful to the infant, but often perplexing to the nurse, especially if the child be much loaded with fat. It generally arises from inattention to cleanliness, but sometimes from the use of coarse or new napkins.

The cure may always be effected by first washing the parts with cold water, and afterwards gently besmearing the surface with fine fullers' earth moistened with water. If it be situated in the groin, or near the genitals, it should (after being washed) be covered with a little *fresh* spermaceti ointment, to defend it from the action of the urine, the saline particles of which produce much pain, and increase the inflammation. When the disease is obstinate, the part may be dressed with the following ointment : —

Take of prepared calomel, and of the flowers of zinc, each half a drachm ;
Spermaceti ointment one ounce. Mix.

Lime-water is also an excellent application when the discharge is thin or offensive. The moistened fullers' earth may afterwards be applied as directed above.

Milk, so frequently employed by nurses as a wash in these cases, by turning sour on the part, often excites fresh irritation.

A preparation of lead, termed ceruse powder, is in very general use, as a dusting powder, for children : it is, however, a very

dangerous application ; and I have no doubt has occasioned the death of many children, by producing convulsions and inflammation of the bowels, instances of which I have noticed under the head of Goulard's Extract of Lead, No. 30.

In the Domestic Medicine of Dr. Buchan, the *sugar of lead* is imprudently recommended to be added to an absorbent powder when the parts are very sore, or tend to ulceration, without even specifying the quantity. The doctor should have known that lead, in a saline state, is a dangerous application for adults, and much more so for infants.

From the inattention of medical men to these particulars in the management of infants, their diseases are often referred to a wrong cause, and their lives sacrificed to the prejudices and ignorance of nurses.

OF THE RED-GUM.

This disease consists in an eruption of small pimples on the skin, which are evident to the touch, generally red, but sometimes yellowish. It appears for the most part on the face, and sometimes on the body and extremities, in clusters or large patches. It is considered by most medical practitioners to be salutary, and it often seems to relieve infants of complaints of the bowels, and difficulty of breathing ; but sometimes it is attended with no such benefit, and may frequently be traced to some imprudent practice of the nurse, either in washing the infant with brandy as soon it was born (from a mistaken notion that it hardens the skin), or by roughly washing it with soap, for the purpose of removing the thick glutinous matter with which all infants are more or less covered when born, and which I have no doubt is intended by nature to protect the tender skin during its foetal state, and to guard it against the action of the atmospheric air on its delivery. If the slimy covering be removed in such quantity as gentle washing with warm water, and a soft old piece of linen will take off, it will leave the skin white and healthy, instead of the dark, red, and irritable state occasioned by the spirit*, soap †, and friction, employed for its removal.

* The evaporation of a spirit from the surface of the body, either of an infant or an adult, occasions such a degree of cold as to check insensible perspiration, and thereby bring on inflammation of the brain, lungs, bowels, or eyes. The practice, likewise, instead of hardening the skin, renders it more tender ; it cannot, therefore, be too much deprecated.

† The most simple wash for children is a water in which some almond powder has been rubbed between the hands ; or fine almond powder may be used instead of soap. This will, in all cases, answer better than soap, the alkaline salt of which injures the skin, while the almond powder renders it healthy.

As the eruption may sometimes be critical, it would not be advisable to employ any *external* application to repel it, but rather to prevent its sudden repulsion, by avoiding exposure to cold air, and by keeping the bowels gently open with magnesia and rhubarb: and should it suddenly disappear, and the child be evidently indisposed in consequence of it, the warm-bath and a gentle emetic of ipecacuan will be necessary, which, by producing a determination to the skin, generally succeed to reproduce it. If cough or difficulty of breathing, or a violent affection of the bowels, intervene, medical advice should be immediately resorted to.

OF THE THRUSH.

This disease appears in white specks on the corner of the lips, the tongue, and back part of the palate, sometimes gradually spreading over the inside of the mouth, and throughout the intestinal canal. Infants brought up by the hand are most subject to this disorder, and to those it does not unfrequently prove fatal.

The cure of Thrush greatly depends on a change of diet. The combination of vegetable and animal jellies, as directed under the head of Arrow-root; or the employment of veal-broth, or beef-tea, thickened with arrow-root or fine wheat-flour, is proper. A costive state of the bowels should be obviated by occasional doses of magnesia, with either calomel or rhubarb, and the parts affected may be touched with the following detergent liniment three or four times a day, by means of a large camel-hair pencil:

Take of honey of roses, one ounce;
Muriatic acid, ten drops;
Liquid laudanum, forty drops. Mix.

Borax, well mixed with honey, in the proportion of one drachm of the former to an ounce of the latter, has been much recommended, and, on account of its consistency, will often answer better than a thin liniment.

In the advanced stage of Thrush, when the system is much reduced, the child should be supported by Port wine and nourishing jellies. The observations made on the treatment of inward fits, page 144., apply to this disease.

In the treatment of Thrush, it is necessary to attend to the diet of the infant; to take care that the food be not given

too hot; to correct acidity either by magnesia or lime-water, according to the state of the bowels, as directed under the head of Magnesia, and by the topical application of the detergent liniment. If the child be restless, the use of laudanum, as directed in cases of difficult dentition, will be necessary.

The other diseases of infants are noticed, in their alphabetical order, in the second part of this work.

INTRODUCTION

TO

THE SECOND PART.

IN the preceding Dispensatory, I have noticed the qualities, doses, and most useful combinations, of the drugs which are best adapted for domestic practice: by which it will appear that we possess the means of depressing and invigorating the vital powers; of allaying pain and morbid irritation; of diminishing and increasing the action of the heart; of lessening the quantity of blood; of rousing the action of the absorbent system; of increasing the secretion of different organs, as the liver, the kidneys, &c.; of exciting perspiration; of relaxing and constringing the muscular system; of emptying the stomach and intestines, &c.; but to employ these remedies with success, a knowledge of the laws of animal life, and of the powers which regulate the system, is requisite. Without such knowledge we cannot discover the real seat and nature of internal disease, or understand the indications of cure. A mere knowledge of remedies only, is contemptible empiricism. But to a mere knowledge of remedies, it is impossible the mind of a conscientious practitioner can confine itself; wherever it acts, it must reason; and, in administering the pill or draught, it must form ideas of the operation of the medicine, and of the particular nature of the morbid state, for the cure of which it is administered. Every man should know something of his own structure, and acquire the knowledge inculcated by the Greek proverb — *Know thyself* — as applied to the body, as well as the mind or condition in life. To qualify a person to administer remedies in cases of indisposition, a minute acquaintance with the mechanism of the body may not altogether be requisite, but it is absolutely necessary to know the situation of the principal organs, their offices, or particular uses, as well as their sympathetic connections.

For the purpose of imparting this information, it will be necessary to take a cursory view of the principles of life, and the

laws of those organs which animate, continue, and regulate the animal machine ; of those which are engaged in the nourishment or support of the body ; and those whose office is to convey superfluous or excrementitious matter from it.

As I intend shortly to publish, as a companion to this Guide, a work on popular anatomy, with plates of the skeleton, the brain, and nervous system, the heart and blood-vessels, the viscera, &c. with an explanation of the operations of the different classes of medicine, I shall here briefly observe, that the brain is the seat of the intellectual functions, and that this organ and its branches, termed nerves, are the seat of sensation or impressions.

From the front of the brain arise two nerves directed to each eye, for the purpose of vision. In the same manner, others are given out for distribution to the ears, for the sense of hearing. The nostrils are supplied with branches for smell ; and the tongue is equally gifted for the sense of taste. The skin, and extremities of the hands and feet, are indebted for their sense of touch to a similar supply. Thus every part of the body receives its sentient powers from the brain, although the organs possess distinct offices. It is by means of the nerves that the sympathy between the brain and the other parts of the body, and different organs, is preserved. For the internal parts of the system, the brain gives out a special nerve or branch, termed the sympathetic nerve. From this branch arise, first, branches to the neck, and from it the cardiac and pulmonary nerves arise, thus supplying the heart and lungs ; it next passes through the diaphragm, distributing its filaments in its progress, and gives out branches to the whole abdominal viscera, or organs ; thence it is directed to the pelvis and parts of generation. The sympathy existing between the brain and other parts is often peculiar, and varies in its degree, being much greater with certain parts than others. Thus a remarkable degree of sympathy exists between the brain and the stomach, so that whatever disturbs the one generally affects the other. For instance, compression of the brain excites nausea and vomiting, and a disordered state of stomach generally produces headache. Nor does there exist less sympathy between the genital system and the brain. Hence that state of mind produced by diseases of this part which induces hypochondriasis, madness, and often suicide. The sympathy also in the female betwixt the womb and the stomach, is no less worthy of notice. During pregnancy, the stomach participates in every sensation of the former organ : hence sickness, nausea, and vomiting, are often the first marks of this condition. When disease of any kind exists in the womb, the same sympathetic irritation in the stomach appears to attend its progress, and often forms a clue to the seat of the disease where it is not

clearly perceptible. Hence it is highly probable, from the existence of this sympathy between the brain and particular organs, that the action of the brain is, in a great measure, kept up; for a stimulus applied to the stomach revives the energy of the whole system, and pain produced in a most remote part of the body will keep up irritation in the brain so as to suspend the natural operation of sleep. On the same principle, medicines which diminish nervous energy, applied to the stomach, produce sleep, and allay pain in a remote part of the body, by quieting the action of the brain, and diminishing its natural sympathy. In this way we may explain the operation of opium, which acting on the stomach, diminishes the sympathy between it and the brain; and of course, if the energy of the brain be diminished, the sympathy between it and the other parts of the body will be proportionately lessened. Thus the operation and energy of the brain is increased by stimulus applied to the stomach, and by morbid irritation of any part of the body. Sleep is likewise induced, and pain allayed, even in a remote part of the body, by diminishing the sympathy between the brain and stomach; for it is ridiculous to suppose that a medicine introduced into the stomach, allays pain in a distant part by being conveyed to it.

The brain being the seat of the intellectual operations, the mind and body reciprocally act on each other. (See the Influence of the Passions of the Mind on the Body, in the First Part.)

The operations of the mind are or should be governed by a power termed *Reason*. (See the article "Soul," in the 46th No. of the Gazette of Health.) Without this regulator, the ebullitions and depressions would produce so much mischief in the machine, as to destroy life. For instance, anger in excess, (which constitutes a temporary madness,) is capable of producing apoplexy; and fear, without this guardian, has suddenly terminated existence. Grief, again, depresses and weakens the operation of the different organs. The exhilarating passions in excess are not less dangerous. Joy, suddenly excited by unlooked-for events, has produced a strong determination to the head, and sudden death; and love, when too unhappy, by absorbing every other feeling, has been attended with the latter effect. Reason, then, is placed to regulate the passions, and preserve them in due subjection, like the boisterous gales which are apt to overset the bark in its passage through life. By the mind, therefore, the general health is most materially influenced.

By rousing the brain, the temperature of the body is increased, while the mild and gratifying passions of hope and confidence, acting differently from the others, soothe and guard that inordinate action of the functions of the body, which the others are apt to create. Under disease, the state of the mind is therefore

a subject of high importance, and requires, on the part of the physician, as much attention as the state of the body. Nothing tends so much to aggravate disease as the influence of the passions, which are, unfortunately, very little under the controul of medicine; hence the proverb, "Who can administer to a mind diseased?"

Connected with the brain or mind, is that peculiar faculty termed *sleep*; an indulgence necessary for the mind and body, forming, in the language of the poet, "Tired Nature's sweet restorer." Brutes require less of this indulgence than man, in consequence of their minds being less exerted. When sleep is completely sound, the intellectual functions are entirely suspended. But if the irritability of the brain is increased, the operation of the mind is kept up in consequence of its connection with this organ, and dreams or vagaries of the imagination arise, which are only the action of the mental powers without the guidance of reason. Hence the absurd and ridiculous ideas they present when awake, though not appearing irrational at the time, such as holding conversation with the dead, and other strange imaginations. Morbid irritation of the brain, or irregular or partially suspended action of the intellectual powers, not only gives rise to dreams, but is also productive of delirium, insanity, and spectral delusions when awake; and the brain being only partially affected, the person may not be sensible at the time, that he is under the influence of disease.

Having taken a cursory view of the animating and rational principles of the body, I shall proceed to consider the means of its nourishment.

The first parts subservient to this end are the teeth, which prepare the food for digestion. During the operation of mastication, the aliment is not only divided, but well blended with a fluid principally secreted by the salivary glands, the action of which is kept up by the motion of the jaw during the process of chewing, in consequence of their being situated over its joints. The food thus divided is conveyed to the stomach, where it is agitated as in a churn, and mixed with the gastric juice, which is a solvent capable of dissolving bone, and, according to some late experiments, even metals.

The food, by the mechanical power of the stomach and chemical action of the gastric juice, is converted into a slimy mass, termed *chyme*. It is then emptied into the intestine named Duodenum, where a milk-like fluid is separated from it, termed *chyle*, for the nourishment of the body. In order that this product may be conveyed to the mass of blood, the intestines through which it passes are furnished with absorbent vessels (lacteals). The length of the intestines of man is no less than

nine times longer than his body, that a sufficient surface may be exposed for the action of the absorbent vessels; and this is further increased by numerous folds of the internal coat, which detain also the fluid in its passage for the same wise purpose. The intestines may be compared to the root of a vegetable, which spreads its fibres to a great extent, and in different directions, to draw nourishment from every part of the surrounding soil. This comparison shows the importance of taking proper food, and of its being properly digested or assimilated; for the health and strength of a vegetable depend on the *quality* of the soil from whence it draws its support. If a weak or unhealthy shrub be removed from a bad to a well manured soil, it will become healthy and strong; the same with the animal body, if the food be good, and the stomach perform its office, the body will be preserved in health. But let the food be ever so good of its kind, if it be not properly digested, the chyle will be of a bad quality, and not in sufficient quantity, the consequence of which will be, the unassimilated food will undergo decomposition, and carbonic gas and an acid will be produced, the general health will sooner or later be disturbed, and some local disease will probably ensue.

The prepared food, received from the stomach, consists of two parts, viz. the chyle already noticed, and of an useless or feculent mass, from which chyle cannot be separated. The nutrient part, or chyle, taken up by the absorbents, is by them conveyed to the mass of blood, and by the arterial system is distributed to every part of the body for its renovation and support. This nourishment is deposited by extremities of arteries exceedingly minute, termed secerning vessels; and though, on examination of them, no difference appears in their shape or form, they separate from the blood very different matter or combinations. Thus the secerning vessels that belong to the bones deposit phosphate of lime; those connected with the glands supply a peculiar firm matter; those of the cellular membrane deposit fat; and these different depositions of matter can only be ascribed to chemical affinity; for, though all these different matters are secreted from the blood, yet they are not to be discovered in the blood by any experiment or chemical investigation. In the selection of nourishment it may be observed, that animal food, while it increases the muscular strength, is apt to over-fill the system of blood-vessels, so as to occasion heaviness, languor, and lethargy, by compressing the brain, &c. Vegetable food, on the contrary, tends to calm and quiet the system, and to compose the mind.

The great purport of taking food to an adult being to support the mutation which the body is constantly undergoing, a

supply of aliment is found to be necessary about three times in the space of twenty-four hours. As the chyle furnished by this supply is deposited by the nutrient vessels, the old particles are removed; thus, in the language of Scripture, we may be said, while in life, to be in the midst of death. The vessels which take up the old matter, termed absorbents, convey their contents to the mass of blood, from which it is separated by certain organs, and conveyed out of the body. The organs appropriated for this purpose are, the liver, the kidneys, and lower portion of the intestinal canal, termed the colon. By the liver, bile is secreted, which by the late Dr. Boerhaave was considered to be nearly the feculences of the blood. It has been asserted that the bile tends to promote digestion; if this were its office, it would have been emptied into the organ in which digestion is performed, viz. the stomach, and not into the intestines. But so far from its promoting digestion, the presence of it in the stomach never fails to disorder that organ, so as to excite nausea, and often violent vomiting.

Some have supposed that the bile, being emptied into the upper part of the intestines, keep up the peristaltic motion. The office of the liver is therefore a most important one in the animal economy. Whatever stimulates, so as to increase the secretion of bile (the feculent part of the blood), proves highly useful in the cure of a variety of diseases, by purifying the blood, and keeping up the peristaltic motion of the intestines; hence, we may account for the salutary effects of mercury in a great variety of diseases, its action being chiefly, if not entirely, on the liver. Another part of the body by which impurities are separated from the blood, is the lower portion of the intestines, termed the *colon*. In this canal we find the peculiar matter termed *faeces*.

Next to the colon and liver, as separating useless parts from the blood, may be noticed the kidneys. By this outlet is carried off superfluous water, and the aqueous part of our food which is not appropriated to nourishment.

The skin may also be an outlet for superfluous matter of the watery kind; but this discharge appears to be principally, if not solely, for the purpose of regulating the temperature of the body during the different changes that take place in the atmosphere, and under disease. The vicissitudes of the atmosphere, more than impurity or any chemical combination, are the great causes of diseases. Health, therefore, is greater in proportion in large cities, from being less exposed to such vicissitudes, or sudden changes, than in the country. When the temperature of the body rises above the natural standard (about

98 Fahrenheit), evaporation of the perspirable fluid ensues, conducting the superabundant caloric to the atmosphere. On the contrary, when the body is below its natural standard, this discharge of the skin is either suppressed or greatly diminished.

Another outlet for a peculiar excrementitious matter is the lungs. During respiration, a great portion of oxygene of the air received into the lungs combines with the carbon of the blood, forming carbonic acid gas. The quantity of carbon or charcoal which escapes from the lungs during this process, in the course of 24 hours, amounts to between three and four pounds (some writers say five pounds). This product is the consequence of a peculiar species of combustion, which is constantly going on in the body to supply it with the matter of heat. It is probably as much for the purpose of keeping up this operation, that a supply of food is necessary, as for the nourishment of the body.

Besides the nutrient and excrementitious secretions, there are others to defend tender surfaces from the action of articles that might produce irritation and mischief; hence the lachrymal glands secrete a fluid (the tears) for the purpose of lubricating and defending the surface of the eyes. The internal surface of the nostrils pours out a mucus for the protection of the delicate membrane on which depends the sense of smell. The internal membrane of joints is lubricated by a secretion termed Synovia. Under disease, the secretion of these parts is often of an acrid quality, excoriating the very surface it was intended to preserve.

In all animals, so strongly does nature seem to have implanted the principle of vitality, that they appear capable of conveying it to others, and of forming, if they may be so termed, *Animated Excretions*, peculiar to themselves. This is a most remarkable circumstance. In the human body a variety of worms is generated, peculiar in their structure from any others to be met with out of the body. It has been indeed conjectured, that the eggs of such animals may be taken into the stomach with our food and drink, and afterwards evolved; but this supposition falls to the ground, when these animals are traced in every part, as the brain, the liver, and even the flesh, which afford no access for the deposition of eggs. It is highly probable, therefore, that equivocal generation takes place. From these facts we are irresistibly led to draw the humiliating conclusion, that not only are we doomed at last to be the prey of worms, when life terminates, but, even while we dance the gay round of pleasure and enjoyment, a worm may be existing in a vital organ and undermining the constitution.

General and Partial Derangements of the Animal Economy forming Disease.

HAVING taken a cursory view of the powers which serve to keep up vitality and support the machine, I shall proceed to consider those deviations from health which occasionally take place, forming disease. These may be divided into two classes, the *general* and *local*, as they either affect the whole body, or occur in one part.

Of the first or *general diseases*, the first order is that of increased heat, which admits many divisions.

The simplest of these diseases is, *inflammatory fever*. During this disturbed state of the system, the brain and nerves are in a state of great excitement. The action of the heart being in consequence quickened, the blood is propelled through the vessels of the brain with greater force, tending to keep up the disturbed state of that organ. The skin becoming dry, heat continues to accumulate from the want of a conducting surface. From the excess of heat, the functions of all the organs are disturbed, and the secretions more or less morbid; hence the nausea and squeamishness of stomach, high-coloured urine, and offensive and dark-coloured fæces. During this state, if one part of the body be more tender than another, some mischief will probably ensue in it if the fever should continue two or three days, such as inflammation of the lungs, bowels, or brain. This accumulation of heat, it is highly probable, has a considerable influence on the state of the fluids. If coagulation of lymph is a natural effect of heat when applied out of the body, we may presume that the application of the same power will also affect it in the body, though not, perhaps, to the same degree. Blood drawn in inflammatory fever has certainly a greater consistence, and exhibits more of the buffy coat, than in health.

In this state of body, then, how would a chemical physician act, and what treatment would he adopt to restore the condition of health?* After diminishing the quantity of blood, he

* It has been said, the sulphuret of ammonia diminishes the red particles of blood. If this should stand to fact, it would prove a highly valuable medicine in inflammatory diseases, and would supersede the use of bleeding, which is employed solely for the purpose of extracting or diminishing the red particles. During inflammatory fever, red particles of the blood are conveyed from the system by the urine, forming what is termed a lateritious sediment, which contains iron, and as soon as this operation of nature takes place, the fever abates. In the Monthly Gazette of Health many cases of inflammation of the lungs, pleurisy, &c., which soon gave way to the inhalation of gas deprived of oxygene, viz., the hydrocarbonate. The salutary effects of this practice the author has frequently witnessed.

would reduce, first, the excitability of the brain by the application of cold water to the head by means of a napkin. His next attempt would be to carry off the accumulated heat by producing a conducting surface, by exciting perspiration. If this be found difficult to be accomplished, he will artificially produce the same surface, by means of the cold or warm bath, the latter of which is preferable, on account of being more likely to bring on the natural secretion. From the sympathy existing between the brain and the stomach and bowels, he would also empty the intestinal canal, that no irritation might be kept up in it. The secretion of the skin being restored, he would endeavour to keep up the evaporation by enforcing the use of diluent drinks, and, for this purpose, cold water answers best. Such is the practice that will be found to succeed in simple inflammatory fever. Considering the cause and nature of inflammatory fever, how little is to be expected from the usual prescriptions of physicians, consisting of small doses of antimony, or a saline draught. By irritating the stomach when excessive heat prevails, by wine or tonic medicines, much injury is often done, and the disease aggravated to the highest degree; and when the patient survives, he is indebted to his sound constitution; for, under such remedies, had any part of the system been previously faulty, the patient must have fallen a victim to the treatment. See INFLAMMATORY FEVER.

The next order of this class of general diseases is *intermittent fever*, the constant and certain cause of which is, Marsh Miasmata, or the effluvia produced from a humid soil. The first effect of this effluvia is a reduction of the vital powers. Hence the extremities become cold; the pulse small and feeble, and the countenance exhibits a ghastly appearance. This state, after continuing for some hours, is succeeded by an opposite one; the heat of the system becoming wonderfully augmented; the pulse full and vigorous, and the vessels of the head overloaded. The duration of this change is limited to some hours, when a copious conducting surface comes on, and is the means of terminating the fever, which is followed by a languid state of the body.

These phenomena admit an easy explanation. The action of the Marsh Miasmata, in the first instance, depresses the vital principle, and the increased action of the system which ensues, is an effort of nature to regain her lost energies.

To regain health under these circumstances, it is necessary to invigorate the stomach, as the organ which supplies nourishment to the system, and being more connected with the brain than any other. The fever is here evidently a salutary attempt on the part of nature to preserve herself, and resist the morbid causes, but her efforts being proportioned to the degree of debility or

deficiency of the vital heat, the temperature of body is considerably raised above its natural standard; hence injury is often produced to some of the organs, particularly the liver, which tends to keep up the effects of the marsh effluvia. This local injury is generally regarded by physicians as the cause, instead of the effect of the malady. See *AGUE*.

When the brain is rendered irritable by excessive heat of body, other phenomena are produced. The intellectual functions are disturbed, producing delirium. Symptoms of extreme debility ensue, and this morbid irritation of the nervous system will often continue after the increased heat has subsided. This form of fever has been styled the *putrid fever* or *typhus*. Such fevers are often epidemic not entirely from contagion, but from a state or condition of the part of the earth on which they occur. Hence the disease sometimes spreads independent of the utmost vigilance to cut off communication with the infected.

In the treatment of such fevers, Chemistry points out the necessity of allaying the morbid excitability of the brain, by application of cold water to the head, and to produce a conducting surface of the whole body to carry off the superabundant heat; and, for this purpose, sponging the skin with cold vinegar, has been found to answer best. It then directs the diminution of the means which furnish the system with oxygene, viz. the red particles of blood, by an abstraction of blood; the removal of any irritating matter from the intestines; and, lastly, it recommends to keep up a certain cohesion of fibre, from the strong tendency to decomposition; for which purpose, astringent matter or tannin should be applied to the stomach, as an infusion of rhatany, the Peruvian bark, &c.* See *PUTRID FEVER*.

If the blood happens to be impregnated with an excess of saline matter, then inflammatory fever will exhibit other phenomena by the appearance of cutaneous inflammation and vesicles, termed *erysipelas*. Most diseases are aggravated by a super-saline state of the fluids, especially those of secreting surfaces, in consequence of their secretions being strongly impregnated with muriate of soda, as catarrh, cough, fluor albus, gleet, &c. Where this state exists the urine is strongly impregnated with the muriate of soda. See *SAINT ANTHONY'S FIRE*.

Besides the forms of fever already described, the general health of

* It is customary to exhibit Port wine in this fever, but the alkohol often disturbs the brain. Dr. Ferriar, of Manchester, asserts, that he has experienced all the good effects from the Rhatany root with sulphuric acid, he ever did from Port wine, without producing the bad effects which often follow the exhibition of the latter.

the body is disturbed by contagious matter, giving peculiar forms of disease, and producing different appearances on the skin, as *small-pox, measles, chicken-pox, &c.* During the increased temperature which attends their progress, a matter of the same nature as the contagion is generated to a considerable extent, and the body rendered secure against any future attack of the complaint.

As the production of morbid matter is in proportion to the degree of fever, it is of the highest importance in the treatment to diminish it on the first appearance.

During these fevers, as well as the other forms described, the excess of heat, or increased ignition, is very apt to produce mischief in tender organs. Hence we find that eruptive fevers, especially measles, are often followed by organic disease of the lungs, termed consumption, particularly where there exists a delicate structure of the absorbent system, or what is termed a scrophulous predisposition. These consequences, therefore, strongly point out the necessity for using every means of reducing the excess of heat as quickly as possible to the natural standard. But, where the natural determination of the disease is, as in these cases, to the skin, the circulation to the surface must not be checked. In small-pox, it has long been the practice to keep the body cool, and experience has proved the utility of this plan; but in measles, the application of cold water to the head may prove useful, but to the surface of the body warm water will be more proper, in order to keep up perspiration, and prevent the determination to the lungs, which is so apt to take place in this peculiar disease.

From these facts it is obvious that much mischief may be done at all times by the continuance of a high degree of temperature in tender parts of the system; and such is the formation of the animal structure, that there are few individuals in whom some part is not of a more weak or tender texture than another. By a continued accelerated circulation through such part, accompanied with excessive heat, local derangement will sooner or later take place. Indeed, instances have occurred of the process of producing heat running so high, as to produce complete decomposition of the animal structure in a few hours, termed *spontaneous combustion*. The transactions of the Royal Society of London present a remarkable instance of this ignition of body rising to fatal excess. It occurred at Ipswich, and in the Journal de Physique of Paris, many cases, not less remarkable, are recorded. Increased heat, then, of the body, from its injurious effects, shows the necessity of keeping the system rather below than above the natural standard, and in proof of the advantage of it, we find persons of languid constitutions

are generally long-lived, and escape a number of diseases; while the inflammatory habit catching fire on every occasion, or having its heat so easily increased above its natural standard, is the constant victim of disease, and rarely has his life protracted to a distant period.

The next order of diseases that occurs in the arrangement I have adopted, are those of *diminished vitality*, a strong example of which is afforded in dropsy. A chemical physician, reviewing the phenomena of this disease, would direct his treatment to increase the red particles of blood, that more oxygen may be attracted from the atmosphere. This, it is well known, can be done by the use of the chemical preparations of iron; a metal which analysis of the blood has taught us exists in a certain proportion in those particles. It is by increasing the heat of the system that iron acts as a tonic on the body. The next object in the treatment of this disease will be to increase the general cohesion of fibre, and prevent the tendency to decomposition. This is done by astringents, particularly the Rhatany root and Peruvian bark, and to these means he will next add the use of stimulants, with a view to rouse the action of the brain, and consequently the absorbent system, while the parts affected are supported by rollers, or other mechanical means; and as the outlet of watery matter is the kidneys, he will stimulate them by the exhibition of the articles termed diuretic.

A morbid state of the sentient powers of the brain forms the next, and a very important class of diseases. The nerves, as they branch out from the brain, have all different offices assigned to them, and hence disease, though excited by one and the same cause, exhibits very different phenomena, in consequence of this circumstance. Where the communication between the brain and the nerves is cut off in any part of their course, either by compression or diseased structure, the nerve loses the power of performing its office. Thus, compression of the optic nerve occasions blindness, termed *gutta serena*; in the same manner a division or morbid state of the nerves of the ears produces deafness.

A morbid degree of irritation of the nerves of the lungs, or muscular fibres of the air-vessels, is termed *asthma*. The same state, or morbid irritation of the nerves of membranes, or the ligaments of joints, is styled *rheumatism*. A similar condition of the nerves of the stomach occasions *indigestion*; morbid irritation of the kidneys, producing an excessive discharge of urine, is termed *diabetes*. This state of morbid irritation of the nerves of these different organs may be either the effect of

increased ignition, or excess of vitality, or a diminution of heat below the natural standard. It may be here observed, that in some constitutions, the nerves of one part are more readily disturbed than others; and this is often transmitted from the parent to the offspring. Hence, in a person, whose pulmonary nerves are more delicate and irritable than those of any other part of the system, whatever occasions a general derangement of health, as changes of atmosphere, passions of mind, excesses of any kind, &c. will produce a fit of *asthma*. In another, where the nerves of the intestines are in a delicate state, *diarrhoea* or purging will be produced. In a female, with a morbid irritability of the uterine nerves, *hysteria* shows itself; and the same might be exemplified in a variety of other instances. From this view of the system, we can account for one disease suspending the action of another, from its producing a greater degree of irritation, even though it be remote from the seat of the original disease, as by a blister applied to the leg, by fracture of a bone, &c.

Thus to give instances, a blister applied to the leg has cured a fit of *asthma*, and that state of mind produced by the influence of charms or mystic remedies has been found highly beneficial in a great variety of nervous affections. An alarm has often cured a fit of *gout*, when the patient at the time was unable to move, from the instantaneous and strong effect produced on his mind, in consequence of the terror of fire. Numerous instances of this kind are on record. From the different states of system with which these different affections of the nerves are attended, I have, with a view to simplify their treatment, termed them *super-irritative* and *sub-irritative*.* This distinction is of the greatest importance in practice; for the remedies that apply to the one, must prove highly injurious when applied to the other. To confirm this by example: in a plethoric female, *hysteria* is equally a common disease, as in women of a different habit. *Asafoetida*, and other stimulants, if given to the former, cannot fail to aggravate the disease; remedies of an opposite quality being the true antispasmodic suited to the existing morbid circumstances. In *rheumatism* the distinction now made has been long observed, and hence the terms of *acute* and *chronic*, as particularly applied to the two different forms of the disease. The distinction I now contend for is strongly confirmed in its

* Super-irritation of system is that state in which many diseases can only exist, and when this is removed either by medicine or the debilitating effects of the malady it terminates, when it is said spontaneously to cease. So with diseases of diminished irritation, by raising the system to a proper degree, health is restored.

propriety, by considering further the diseases of the young and old. In youth, the system shows a more lively degree of irritation, and the blood-vessels, particularly the arterial system, being for the most part overloaded, a greater degree of heat is evolved. To apply our knowledge of this state on proper principles to the treatment of disease, we may observe that, in white swelling, friction with the warm hand is decidedly injurious in a young subject, as promoting suppuration, and extending organic derangement of structure; but, on the contrary, when the arterial system is in a different state, and shows no marks of being overloaded, then the same application of friction will be highly useful by rousing the powers of the absorbent vessels and promoting more actively the process of mutation. Hence the age of a patient is a point of the greatest consequence in directing the treatment of a disease, as modifying the state of the same malady. To increase examples, I may observe that even indigestion, a disease generally attributed to debility and relaxation of stomach, is often an affection of the super-irritative kind. It often occurs in persons who eat much animal food, and indulge in vinous liquors, by which the sanguiferous system becoming overloaded, the brain is compressed, and languor, lassitude, and a sense of seeming weakness are the consequences. By the same cause the brain is disturbed, and the system rendered irritable. Here the usual remedies of stomachics and cordials, of high stimulant powers, cannot fail to prove mischievous; while, on the contrary, those means that tend to produce depletion, and unload the system, will restore the body to health.

When the food is not properly digested, fermentation is a process that naturally ensues, occasioning a powerful acid and disengagement of fixed air. There is also a disengagement of hydrogen in the intestines, which is, I conceive, of an animal nature, being more heavy than common hydrogen. It is probably produced in the intestines, and passed downwards. It may be even ignited by fire. This gas is also found to exist in quantity in venous blood.

From morbid irritation of the nerves of muscles arise involuntary contraction of the muscular fibres, termed spasms, which in the large muscles, particularly those of the calf of the leg, are generally very obstinate and painful. In the circular muscles of the intestines, these spasms are most acutely painful, but in point of obstinacy and continued contraction those of the muscles of mastication, producing the disease termed lock-jaw, is the most obstinate, proceeding probably from the principal muscle (a short thick one) being *naturally* in a contracted state, in order to keep the jaws together.

In the foregoing view of the system, it has been observed the action of the brain regulates its economy, and that the nourishment and mutation of the body is dependent on it; for from it the several organs and vessels derive their primary power of acting. In cases of local morbid irritation of nerves we may therefore suspect that diseased structure or partial derangement will take place; for in the mutation of the body, a process constantly going on, if by this morbid irritation the unison of action be destroyed between the depositing and absorbing vessels, the consequence will be a diminution of bulk, or shrinking of the part, or an increase of bulk. The accumulation or increase will partake of the nature of the part, in the mutation or support of which the vessels were concerned. Thus when the accumulation takes place in the cellular substance, a fatty tumour is formed; if in a bone, the accumulation will consist of bony matter; if in the cuticle, it will constitute a wart; if in the glands, it will exhibit the same degree of firmness and peculiar structure. In the glands of the female breasts, this accumulation is very common, producing that formidable disease termed *cancer*. In explanation of this disease, the nutrient vessels deposit more than the absorbent vessels can carry off; and thus the glandular matter continues to amass, till compression of the nutrient vessels takes place to that degree, that the source of nourishment is cut off from the part, when the latter becomes, as it were, an extraneous body, subject to all the changes of animal matter; and on decomposition taking place, forming an ulcer, peculiarly fetid and offensive. In the progress of this accumulation the absorbent vessels becoming enlarged, resemble the claws of a crab, from which the disease is named.

In the treatment of this and similar affections, the great object is to increase the action of the absorbent vessels of the part, which cannot be more effectually done than by friction and stimulating plasters. These methods generally succeed in the early period of the disease, before the absorbent vessels are compressed by the accumulated matter. In the process of the mutation of the system, the absorbent vessels act a very important part. From a morbid irritability of these vessels alone arises that peculiar disease termed *scrofula*, to which persons of delicate structure and morbid sensibility are most subject. Hence it is the disease of genius, of talent, and of those possessed of the finer feelings. Its obstinacy arises from the vessels being constantly in action. Cold bathing seems here so far useful, as diminishing the morbid irritability better than any other means. The local mischief which takes place must be treated according to the predominant state of the system as to

plethora or debility, *i. e.* whether it is of super-irritative or sub-irritative nature.

From the foregoing view of the human body, local diseases may be divided into three classes, *viz.* *increased* and *diminished ignition*; *super-irritation* and *sub-irritation*; and *diminished irritation*.

The first order of diseases of increased ignition or heat are those termed inflammation; and here the local increase of ignition is often very great, the part becoming tumefied by the distention of its vessels, and effusion of lymph, the small vessels seem obstructed by the lymph of the blood being thickened in consequence of its increased heat; and this is confirmed by the appearance of the fluid on scarification. In directing his treatment here, a chemical physician would not only unload the vessels of the part, but he would keep up also an evaporation from it, by applying to it a simple fluid in a cold state to produce a conducting surface. For this purpose alcohol and ether are the most effectual, as being more rapidly evaporated. The effect of ether indeed depends on its facility to escape, for if it be confined on the part by the hand, instead of conducting off heat, it will increase the mischief.

Besides this local treatment, he will also attempt to reduce the general increased ignition of the system, by cold water applied to the head, by removing general fulness, and internal irritation by purgatives, and if the part affected be an important one in the economy, he will reduce the quantity of blood in the system. Local super-ignition, or inflammation, exhibits different characters, according to different structure of the part it attacks; when it occurs in a secreting surface, there is an increased secretion of the part, which checks its progress to suppuration; when chiefly confined to the nerves it is very painful, forming what is termed the *gout*.

The second order, diseases of local sub-ignition, occur in almost every part of the body, as well as the former, and they arise also from diseased absorbent vessels, and diminished irritation of nerves.

Of the local diseases of morbid irritation, those of accumulation have been noticed; but when the secerning extremities of the nutrient vessels do not perform their office, an opposite state to the former order of diseases takes place, the parts diminishing in size, which is termed atrophy. When this occurs in the bones, the disease is named rickets, produced in consequence of the phosphate of lime, which gives firmness and solidity to the bones, not being supplied or deposited in their substance in due quantity.

The difference in the appearance and nature of many diseases therefore arises from the difference of structure of the part in which they occur. Thus the morbid irritation that disturbs the mutation of the cuticle will have a different appearance to what takes place where it disturbs the mutation of the *Rete Mucosum* and the true skin. This difference is strongly instanced in the scalp. If confined to the cuticle it will exhibit a furfuraceous appearance, or form scald-head; — if it extends to the rete mucosum, it will show the appearance of ring-worm, and if it goes still deeper, it will then constitute a boil, and these different affections will again differ in their appearance as they are attended with a state of super or sub-ignition.

Besides the maladies enumerated, I have in my new system introduced a class of diseases from mechanical causes. The first order of this class arises from compression, and comprises *apoplexy* and *dropsy*; — the former arising from the compression of the brain, the latter from the compression of veins, particularly those of the liver. Jaundice also belongs to this division, from obstruction of the biliary duct by biliary concretion.

The second order arises from laceration, as *hemoptoe* from rupture of vessels in the lungs, and *hepistaxis* from a similar rupture of vessels in the nose.

A third order is formed of loss of natural support, as *spina bifida*, *aneurism*, *rupture*, &c.

Another class comprehends parasitical diseases, of which there are two divisions, internal and external.

The first comprises the different species of *worms*, *hydatids*, *stone*, &c.

The latter consists of the *itch*, *lousy disease*, *Guinea worm*, &c.

Some exception may be made to this classification of stone, as giving it animation, and receiving it as a living parasitical production, but it certainly, on chemical examination, possesses animal properties, and shows at the same time a regular-formed structure.

From this view of the principle of Animal Life, and the leading phenomena of Disease, the human body resembles an elaboratory, in which is constantly going on a variety of processes, and regulated in its movements and having its existence begun and continued by the action of its calorificating powers, joined with its sentient and intellectual functions. In the treatment, then, of disease, it is an attention to these combined powers that is to direct our conduct. We have seen, on examining this interesting subject, that the mind, a principle which soars superior to matter, has a leading influence over it, and particularly over that organ termed the brain; that its power exceeds that

of any chemical agent; and that, in consequence of this strong regulating influence it possesses, it is highly probable that the efficacy of medicine, and of all such matters as are directed to the cure of disease, depends much on the confidence of the patient, and the impression his mind receives from the flattering prospect held out by their use; some medicines producing much benefit, by the very disgust they excite in the mind, as *asafetida, &c.*

In the treatment of chronic diseases, the leading point for attention is the state of the digestive organs. The stomach, like the chemical digester, is the grand preparer of nourishment, an office on which greatly depends the existence and the health of the system. The importance of this office is particularly pointed out by the analogy of the vegetable kingdom. A shrub, whose branches are withering, stinted, and diseased, recovers soon after it is transplanted from a bad to a good soil, when it becomes strong, full, and healthy; so in the animal, a proper conversion of food into chyle will have an equal effect. But not only is it necessary that proper nutrition should be supplied for a healthy state, but it is also requisite that the superfluous or feculent parts should be removed from the intestines daily, as they are apt to be decomposed, by the action of heat, in the intestines, and thus to produce serious injury to the body. So much is Mr. Abernethy impressed with this fact, that there is scarcely a disease which he does not refer to a disordered state of the digestive organs, and to remedy which his treatment is accordingly adapted. One great error in common life may be here noticed as highly prejudicial to health, viz. the custom of indulging in wine or other stimulant liquors during and after dinner. This is not necessary to a healthy action of the stomach, and by accelerating its functions must evidently do harm. Cold water is the best promoter of digestion in youth and middle life, and wine is a cordial that should be only reserved for the weakened powers and incomplete digestion of age. The alcohol of wine appears also to enter the blood; for the air that is expelled from the lungs of a drunkard is impregnated with it. Such a combination must necessarily injure the brain, and sooner or later produce general or local mischief.

In the treatment of diseases, again, the age of the patient is a leading point to regulate our conduct in the use of remedies. After the age of fifty-five, the heyday of life is past, the powers of the system begin to flag, and its former vigour to decay. Morbosity, or deranged structure, in consequence of disturbed mutation, is apt to take place, as ossification of arteries, thickening of parts, &c. The nervous system is less excitable or susceptible of impressions than during middle age. The

arterial fulness, or plethora, which distinguishes youth, has now passed to the venous system, where the blood is retarded and accumulates in different parts. At the period when inflammation occurs, and where bleeding may be indispensable as a remedy, it will be necessary to attend with a guarded caution to the quantity and quality of the blood. The same attention must be extended in directing the use of every active medicine to counteract disease.

In diseases where the continued use of mercury is deemed necessary, the stomach and system should be prepared for its exhibition; for if the stomach be disordered, and a morbid acidity generated, purging or diarrhœa will be the consequence. Hence, in every chronic disease, before entering upon its cure, some preparatory treatment will be necessary to ensure the success of the means to be adopted.

The 89th and 90th Numbers of the Gazette of Health contain some valuable remarks on the necessity of preparing the stomach and intestines for specific remedies, by Mr. Vaughan, a respectable surgeon of Shrewsbury, who attributes the failure of many valuable remedies to produce the desired effect to their having been injudiciously administered, when the stomach and bowels were disordered.

As the success of medicine must in a great measure depend on our being properly acquainted with the habits and constitution of the patient in a state of health, as well as the seat and nature of the complaint, I shall conclude this chapter with the necessary questions to be put to patients, the answers to which will afford the requisite information; with a few remarks, the object of which is more clearly to elucidate the nature of the disease, and point out the most judicious plan of treatment. It is a well known fact, that the physicians of large towns, in full practice, seldom allow themselves time to obtain the requisite information relative to any peculiarity of constitution of the patient — his stamina, habits, and other circumstances — which might render the remedy applicable to the disease itself highly improper. Important as such information unquestionably is, it is a common practice with many physicians to limit their time with a patient to *ten minutes*; hence, with a very superficial knowledge of the real situation of the patient, and very likely at the same time perfectly ignorant of any peculiarity of constitution, or natural stamina of their patients, they will write an elaborate and mysterious prescription, and, with a grave countenance, give some few directions as to diet, &c. With such physicians, it is but too evident the only object of interest is the fee! Such is the practice of those routine physicians who

degrade their profession into a trade, comparatively more disgraceful than that of the lowest mechanic.

A person who takes upon himself the office of attending the sick should possess a humane disposition and benevolent intentions. He should consider, that his commission is of a large extent, and that it comprehends *every thing* that may in any way tend to restore or improve the health of his patients. Compassion towards the distressed is a general obligation, but bears a peculiar reference to a profession, the sole employment of which consists in relieving a large class of the miseries of human nature. Humanity and benevolence should be apparent in every part of his conduct towards the sick. He should not only possess these virtues, but exercise them in the mildest and most agreeable manner. "Gentleness of behaviour," observes an elegant and humane writer, "makes the approach of a physician be felt like that of a guardian angel, sent to afford ease and comfort, whilst the visits of the rough and unfeeling resemble those of a minister of vengeance and destruction."

Although humanity should be the leading trait in our character, we should take care not to indulge ourselves in sympathetic tenderness to such a length as to enervate our minds, or incapacitate us in any degree to relieve the distresses that are so much the objects of our commiseration. Steadiness of character, and presence of mind, are no less requisite to form the physician. "A certain degree of tenderness," observes the same writer, "is so far from being inconsistent with these qualities, that it tends greatly to promote them, by furnishing a powerful motive for their exertion; but when carried too far, it is apt to disappoint its own purpose." It is not the least advantage that is derived from the attendance of a physician, that although he be sufficiently interested to excite the best endeavours for his patient's recovery, he is generally free from those agitations which the more immediate connexions of the sick must feel in the dangerous situation of their friend, and which must necessarily cloud the judgment, and embarrass the conduct of those liable to such perturbation.

We should maintain a proper degree of influence and authority with our patients, which is far from being inconsistent with sympathy and tenderness. This is requisite, that our directions may be properly regarded. If a physician lose his authority, the patient is essentially injured, in consequence of no fixed or steady plan of treatment being pursued. Remedies are advised without prudence, and left off before sufficient trial of them could be made. These are multiplied by the officious impertinence of curiosity, which but too frequently intrudes upon the sick, under the disguise of friendship; and should the pa-

tient, from the inactivity of the medicine, be so fortunate as to escape positive injury, it often happens that the critical moments are suffered to elapse, in which something might have been done towards his recovery.

The pleasing manner which accompanies the performance of our offices to the sick renders them doubly valuable. It augments even the efficacy of medicine, by the comfort and support it affords to the spirits; and is not less serviceable in cases wherein even a relief of the disorder is scarcely an object of hope, by reconciling the patient to his situation, which contributes above all things to soften the bed of sickness, and, beyond the power of flattery, to soothe the cold ear of approaching dissolution.

To point out, however, the line of conduct we should on all occasions pursue, would far exceed the limits of these introductory remarks. Our conduct as physicians should always be regulated by the precepts of Christianity. Instead of being actuated by sordid motives, we should endeavour to realize the abstract refinement of philosophers — That *we were born NOT for ourselves, and live BUT for others.*

GENERAL QUESTIONS TO PATIENTS.

Q. *Of what age is the patient? Has he, prior to his present illness, enjoyed good health? Is his constitution naturally good, or impaired by any irregularity?*

In acute diseases — as inflammation of the lungs, pleurisy, inflammatory fever, &c. — the propriety of blood-letting, its extent and repetition, as well as the use of aperient and diaphoretic medicines, must in a great measure depend on the age, natural constitution, and habits of the patient.

Q. *How long has he been ill? In what manner was he attacked? Is the complaint stationary, or is the patient worse or better, and in what respect?*

In fevers of all kinds, it is of great importance that the practitioner be acquainted with the stage of the disease, and if the patient be in a convalescent state.

Diseases are divided by authors, from the *period of their duration*, into two kinds, named *acute* and *chronic*. The period of an acute disease has been limited to within forty days; if it extend beyond that time, it is regarded as chronic. The general symptoms of acute disease are a quick pulse, heat of skin, thirst, furred tongue, pain in the loins or limbs, an incapacity of attention or exertion of mind. These distinctions are not sanctioned by practice; for some diseases continue in an active state

a much longer period, and some chronic diseases exhibit symptoms of an acute nature. In all diseases it is of great importance to decide if it be super-irritative or sub-irritative; directions for which are given in the introduction to the second part of this work.

Q. Is he affected with slight shiverings (rigours)? Is he feverish? Does he complain of pain in the head or chest?

In rheumatism or cough, it is of great consequence to be acquainted with the state of the system; for in case of fever, or a feverish disposition, (indicated by rigours, increased heat, pains in the head or chest, and quickness of pulse,) the guaiac gum, and other stimulating medicines, would be injurious in the former disease, and the paregoric elixir in the latter.

Rigours attendant on cough, indicate some serious mischief to be going on in the lungs. When rigours attend acute pains in the bowels, the disease may be suspected to be of an inflammatory nature, and not common colic. In cases of deep-seated pain, particularly in the loins, rigours denote the pain to arise from inflammation; and if the rigours continue to recur for a week or ten days after the first attack of pain, the disease is not to be considered rheumatic, but inflammatory, and that suppuration will probably take place if very active means be not employed to prevent it.

Q. Is he restless or quiet? Has he been accustomed to take laudanum? and in what quantity?

In super-irritative and sub-irritative diseases, a knowledge of these circumstances will determine whether laudanum may be administered alone, or added to any other medicine, and the dose.

Q. Is he affected with heat, shiverings?

In cases of rheumatism, cough, pains in the head and bowels, these questions, answered in the affirmative, prove that the disease is of an inflammatory nature, and that whatever tends to stimulate the system should be avoided, both in medicine and diet.

Q. Is he affected with pain in any part of the body?

In all fevers it is of great importance to attend to local pains; for inflammatory fever often terminates fatally, by producing inflammation either of the brain, lungs, or bowels, which, by early attention, may be in general obviated by the application of leeches, blisters, &c. If local inflammation should appear, during fever, in any part of the body, not necessary for life, and in which suppuration is not likely to be attended with any serious consequence, it should be encouraged by warm poultices, rather than dispersed by any cold application. When dispersion is

deemed necessary, it should be attempted by extracting blood from the part, or by scarification; and if the joints be attacked, also by blistering.

Q. *Is he affected with shivering fits? Are they succeeded by heat and perspiration?*

All inflammatory diseases are generally ushered in by the slight shiverings termed rigours, which are succeeded by an increased heat of the body, and sometimes by perspiration. These symptoms occurring during inflammatory fever, or local inflammation, so deceive an inexperienced practitioner, as to induce him to consider the disease a species of ague, and thus lead to the improper exhibition of the Peruvian bark. In doubtful cases it will be necessary to inquire how often the shiverings occur; and if only once a day, at what period, how long they last, and also the degree of heat and perspiration, and particularly if there be an evident intermission after the termination of the perspiration till the re-occurrence of the shiverings; and also if any local mischief be going on in the system, of which the shiverings may be symptomatic. The Peruvian bark, or stimulants of any kind, should not be administered in cases of shivering, until it be manifestly ague, as a considerable aggravation of the inflammatory symptoms might be thereby produced. An emetic and the saline mixture are proper in ambiguous cases, till its real nature be ascertained, which a few days will decide.

Q. *Is the tongue furred, and of what colour? Is there a disagreeable taste in the mouth, nausea in the stomach, or loss of appetite?*

The answers to these questions will determine the propriety of exhibiting an emetic, particularly in cases of indigestion, and the commencement of fevers. The colour of the tongue, in ambiguous fevers, with a declining state of the strength of the patient, will often decide its nature. Physicians, in almost every disease, and particularly in fevers, examine the state of the tongue, for by it they are enabled to judge of the condition of the stomach; of thirst, or rather the occasion the patient has for drink, when, on account of delirium or stupor, he neither feels his thirst, nor is capable of calling for drink:—from an inspection of the tongue, a judgment may be formed concerning the nature, increase, and remission of fever. When the tongue is dry, and covered with a dark scurf, attended with wandering of the mind and dejected countenance, there will be reason to suspect the fever to be putrid, or strongly disposed to it. When the tongue becomes moist, and the edge clean and red, the patient may be considered in a convalescent state.

Q. *Are the bowels properly relieved, or in a regular state?*

In all diseases, it is absolutely necessary to be acquainted with the state of the bowels. In acute or inflammatory diseases, they should be kept open; and in chronic complaints, costiveness should be avoided. If purging should occur, without the aid of medicine, during inflammatory fever, it should not be checked, but moderated. Even in putrid fever, where the strength of the patient is much reduced, it is often of great service.

Q. Are the stools pale, dark, or bilious?

In jaundice, the colour of the stools shews if there be any obstruction to the free passage of the bile into the intestinal canal. If they are dark, slimy, and offensive, it is evident that digestion does not go on well, and that there is irritation in the intestinal canal. If they are pale, it is a proof there is a deficiency of the secretion of bile.

Q. Are the stools copious, hard, or liquid? and is there any irritation at the fundament, or inclination to go to stool without being able to evacuate faeces?

The quantity of faeces evacuated is of as great consequence as frequency; for a person may have frequent motions from irritation at the fundament, and yet not be purged. The matter evacuated is often nothing but mucus, from irritation in the great intestine, which is termed *tenesmus*, and not purging. In cases of purging, it is necessary to enquire whether the stools are soft, or whether they come away in hard lumps, with a quantity of slime. When the discharge consists of soft or liquid faeces, it is termed *diarrhoea*; but when it is slimy, and the faeces are in hard lumps, it is termed *dysentery*.

*Q. Is the pulse weak, strong, quick, frequent? or does it intermit? **

By the pulse, we judge of the state of the circulation with respect to fulness, and the state of the nervous system; for the heart and arteries receiving their power of action from the brain, the manner in which the pulsation is performed shews whether the nervous or cerebral system is in a morbid state of irritation. To draw any accurate conclusion from the state of the pulse during disease, we should have some knowledge of it when in health, for the pulse differs materially in different subjects. A full or oppressed pulse indicates plenitude of the sanguiferous system: a small frequent pulse, with a cool skin, indicates weakness: a quick pulse shews great irritation of the cerebral or nervous system. It often happens, that a pulse indicative of

* The pulse is the beating or distending of an artery from blood propelled into it by the heart. The intervals of the pulsations are the times when the heart itself is distended with blood.

great weakness, is attendant on inflammation of the lungs, stomach, intestines, and brain; but in these, and the like examples, the *nature* of the malady, and not the *state of the pulse*, must determine the necessity of blood-letting. When the pulsations *rapidly* follow each other, it is said to be *frequent*, which may also be *full, strong, and hard, or soft, small, and weak*. When the pulsation is performed with great *celerity*, although the *intervals* be long, it is termed *quick*. A *slow* pulse may, therefore, be *quick*, and a *frequent* pulse not *quick*; the term *quick* applying to the pulsation, and not to the *interval* of the pulsation, to which the term *frequent* applies. When the strokes do not follow the usual interval, and sometimes not till after twice, thrice, or four times the usual space, it is termed *intermittent*. In some animals, this pulse appears to be almost natural, and is common to some people even in a state of health. An *intermittent* pulse arises from an unequal influx of the blood into the heart, from increased irritability, or disease of the organ itself. Sometimes it is produced by pressure of a tumor, or water in the chest or pericardium.

The pulse of a child should be felt whilst it is asleep, on account of its being so easily quickened by new sensations. The pulse of a healthy infant, on the day of its birth, is between 130 and 140 strokes in a minute; the mean rate during the first month, 120; and rarely, if ever, below 108. During the *first* year, the limits may be from 108 to 120; the second year, at 90 and 100; the third year, 80 and 100; the fourth, fifth, and sixth, nearly the same as the third. The seventh year it is sometimes 72, but generally more. The twelfth, about 70. In adults it is usually from a little below 60 to a little above 80. The natural pulse of some people is as low as 25.

It must be remembered, that the pulse in health varies in the course of the day. In the morning it is slow, after a full meal it is quickened 10 or 12 strokes in a minute. Even during fever it varies much, according to the state of the skin. When the skin is dry, it is often 20 or 30 strokes more frequent than when it perspires freely. Position of body also makes some difference; in an *incumbent* posture, it is more frequent (about 5 strokes in a minute) than when *erect*.

When the pulse is so far accelerated as to exceed the healthy standard 15 or 20 pulsations in a minute, some disorder in the system may be apprehended. But the irritability of a child and some adults is such, that a *very slight* fever will considerably increase the frequency of the pulse when no danger attends; and as there is in children much difficulty in counting the pulse when it is at 180 and upwards, we are better enabled to judge of the danger of fevers in them by the countenance, thirst, quickness

of breathing, aversion to food, pain, and restlessness, than by the pulse.

We must take care that we are not deceived by what is termed an *oppressed pulse*, which is the effect of an overloaded state of the sanguiferous system; the heart, in consequence, not being able to contract with sufficient force properly to propel the blood through the arterial system. This is accompanied with other symptoms of plethora and distention of the vessels of the head and chest, occasioning head-ache, giddiness, difficulty of breathing, &c.

Many physicians make use of a watch at the time of feeling the pulse. This I conceive cannot in any instance be necessary; for it is not altogether by the *number* of pulsations in a given time that we are to form an opinion, but by the *manner* in which they are performed. Hence the pulse of a patient with fever will be very quick for a few pulsations, then slow and languid, and at other times it will intermit; so that saying it beats at the rate of 90 or 100 in a minute, is next to saying nothing. Besides, every medical man should be able to say how frequent a pulse is, within two or three pulsations, in a minute, without the aid of a watch. If he cannot, he must have benefitted little by his experience. I have observed that it is the ostentatious and ignorant only that make use of a watch in such cases. The physician should not feel the pulse of his patient till he has been a few minutes in his company, for the agitation generally produced on his first appearance has a great effect on the pulse.

Some further observations on the state of the pulse, as indicating the propriety of bleeding, are made in page 112., under the head of PHLEBOTOMY.

Q. *Of what colour and consistence is the urine? Does it deposit a sediment?*

When a fever is abating, and drawing to a favourable crisis, the urine generally deposits a lateritious sediment. In putrid fever it emits an offensive smell, and is often tinged with blood. In the last stage of pulmonary consumption, it is also offensive to the smell, and deposits a whitish matter. In cases of pains in the loins, the state of the urine will often determine whether the kidneys are the seat of the disease.

In hysterical affections the urine is pale and thin. In debilitated individuals it has a frothy head, which often remains a considerable time, on account of its abounding with viscid and oily particles. When the stomach is disordered, it deposits a sediment resembling brick-dust.

Q. *Is he troubled with night-sweats? Are they preceded by rigours and heat? At what time do they come on? Are they copious, confined chiefly to the breasts? and do they smell strong?*

In cases of inflammatory fevers, perspirations may be considered critical, and should not be checked, unless they are so excessive as to weaken the patient.

Q. Is the skin moist, or dry and hot?

In all fevers, and internal inflammatory attacks, it is very necessary to attend to the state of the skin, for in those complaints it is of the first consequence to produce a moist surface. By the evaporation of perspirable matter, superabundant heat, and probably electric matter, are conducted from the body. — A dry skin, on the contrary, favours the accumulation of heat in the system.

The perspiration or sweat is very analogous to the urine; and when either of these secretions is diminished, the other is generally increased, so that they who perspire the least make the most water, and *vice versa*.

Copious perspiration, attended with a sense of general lassitude, and a feeble pulse, indicates great debility or laxity of the cutaneous vessels.

Q. Does he void much urine?

An excessive evacuation of urine, like excessive perspiration, is a frequent cause of debility and emaciation of the body. In dropsical cases, it is of great consequence to know whether the kidneys perform their office, for dropsy will sometimes arise from a sluggish state of the kidneys.

Q. Is his sleep quiet or disturbed.

This question, in cases of fevers, will sometimes determine if the brain be much affected. In many diseases, by the state of the sleep, the practitioner will often be able to ascertain whether the nervous system be much disturbed, or the principal seat of the disease.

In affections of the head, the dreams and sensations of the patient during sleep will, in some degree, assist the practitioner in forming his judgment if it arises from a distention of blood-vessels, threatening apoplexy. In cases of disturbed sleep, it will be necessary to attend to the appearance of the eyes. If the pupils be much contracted, the blood-vessels distended, and the patient cannot bear to look at a luminous body, an inflammatory attack of the brain may be suspected.

Q. Does he breathe with difficulty?

In inflammatory fevers, difficulty of breathing indicates great plethora, or a great determination of blood to the lungs; in either case the loss of blood and evacuating remedies are necessary. In dropsy of the belly or extremities, the state of the breath will determine if there be an effusion of serum in the chest. When shortness of breath comes on rather suddenly, attended with rigours, and the *acute* pains in the chest,

termed stitches, it denotes inflammation of the lungs, or pleurisy.

Q. *Is there any expectoration? and is it difficult? What appearance, and taste?*

In all coughs, it is necessary to inquire if the patient expectorates, and the appearance of the phlegm. Cough generally terminates in an expectoration of a clear mucus, which has frequently a saltish taste. In *chronic* cough, the violence of the cough will, in a great measure, depend on the tenacity of the phlegm. In such cough it is of great consequence to produce a secretion of mucus, that will require little exertion to bring up. In inflammation of the lungs, it is necessary to attend to the appearance of the mucus expectorated; if it be clear, and comes up freely, it is a very favourable omen; if tinged with blood, it often indicates the propriety of bleeding. If great difficulty of breathing and cough be not attended with expectoration, the patient may be considered in great danger.

In cases of cough attended with emaciation of the body, by the *appearance* and the *quantity* of the mucus expectorated, the practitioner is enabled to ascertain if the lungs are ulcerated. If the matter is opaque, of a yellowish appearance, offensive to the taste, sometimes tinged with blood, and the patient be affected with hectic fever, or much emaciation, his case may be pronounced pulmonary consumption.

Q. *To what diet has he been accustomed?*

A knowledge of the mode of diet of the patient is necessary, not only to enable the practitioner to form an opinion of the nature of the disease, and its probable termination, but also to prescribe medicines, and to give instructions as to his regimen. Much, however, must depend on the *violence* of the symptoms in acute or febrile diseases, or weakness in chronic disorders.

Q. *What remedies has he taken? and with what effect?*

By being acquainted with what has been done for the patient, and the effects thereby produced, the practitioner has the great advantage of knowing what is left undone, and of forming an opinion of the situation of the patient.

Q. *Has he ever been afflicted in the same manner, and how often?*

When a patient is found in an insensible state, this question, put to his friends, will in some degree enable the practitioner to determine whether the disease be apoplexy, catalepsy, the stupor following epilepsy, a fit of intoxication or swooning. If the patient has been similarly affected, he has the advantage of inquiring what was then done for him.

Q. *Has his countenance altered since his indisposition?*

The countenance of a patient should, in all diseases, be particularly noticed; for in prognosticating the issue of a disease, medical men are often more governed by the countenance than any one single or even combination of favourable or unfavourable symptoms. The following description Hippocrates gives of the looks of a dying man, which, on account of having been first noticed by him, is termed the Hippocratic face:— “When a patient (says he) has his nose sharp, his eyes sunk, his temples hollow, his ears cold and contracted, the skin of his forehead tense and dry, and the colour of his face tending to a pale green, or lead colour, one may give out for certain that death is very near at hand, unless the strength of the patient has been suddenly exhausted by long watching, or by looseness, or by having been a long time without eating.” This observation has been confirmed by those of succeeding physicians.

To female patients, other questions are necessary, with the nature of which every female is well acquainted, and which no sensible female will hesitate to answer fully.

If she has an infant, it will be necessary to inquire whether she suckles it herself, and how often; for many diseases arise in weakly women from suckling their infants too frequently; besides, the practitioner, in consequence of being unacquainted with this circumstance, may administer medicines which might prove injurious to the infant. In some cases it may be necessary to wean the child, either for the benefit of the mother or child, or both.

In the diseases of children, the following questions will be necessary:—

1. *The age of the child.*

2. *Is it cutting a tooth? and how many teeth has it?*

In cases of purging or fever, the answer will determine if the complaint arise from teething. (See DENTITION.)

3. *Is it ricketty?*

4. *Does its stature correspond with its age?*

5. *Has it had the cow-pox?*

In eruptions of the skin, it will be necessary to make this inquiry, as cutaneous affections resembling the itch are supposed to follow this disease.

6. *Has it had the hooping-cough, small-pox, measles, scarlet fever? and do any of those diseases prevail in the neighbourhood?*

When a child is affected with fever, it will be very necessary to make those inquiries, as it may probably be indisposition preceding some eruptive fever.

Q. *Has it a large belly, with emaciated limbs and large joints?*

These are symptoms of great weakness, approaching to rickets, and often arise from worms. (See WORMS.)

We must bear in mind, that most acute diseases have two stages, viz. super-irritative and sub-irritative, or when the disease exists in full power, and when it is on the decline. In the first state, medicine will often have no effect, and all that a physician can do is to watch nature, and guard against the mischief which so often follows the officious interference of nurses. In the latter stage, tonic medicines, as the Peruvian bark and wine, generally prove very beneficial in hastening the recovery of the patient; and hence a medicine often obtains reputation in the cure of a disease, which, had it been given in the first stage, would have been injurious. We should be very careful not to begin this restorative plan too soon, for a recurrence of the inflammatory symptoms is too often produced by an over-anxiety to recover the patient.

There are many deviations from health to which we can give no specific name. Those of a chronic or sub-irritative nature may generally be traced to some affection of the stomach or bowels. In such cases we should endeavour to strengthen the stomach by tonic or bitter remedies, with such combinations as attendant symptoms may indicate. Thus, for instance, if the patient complain of heartburn or acidity in the stomach, with *slight purging*, tonic medicines, as rhatany, columbo, &c. should be taken in *lime-water*; but if the bowels are confined, the addition of magnesia will be more proper than lime-water.

On the means of ascertaining the nature of different diseases, I have already been explicit. One circumstance we must bear in mind is, that many diseases, particularly those in which the nervous system is principally affected, will recur, unless the disposition of the system to the disease be effectually destroyed by a perseveraunce in the medicine. Hence, in consequence of a patient's discontinuing the medicine when he finds himself well, in a few days he will experience a relapse; and because the medicine only produced a temporary relief, it is very common for a patient to object to a further trial of it. Now had he continued it for a little time longer, the disposition to the disease would have been entirely overcome. Of this class of diseases are intermittent fevers, nervous head-ache, St. Vitus's dance, insanity, epilepsy, &c.

Before we prescribe a purgative, we should inquire if the patient be subject to piles, or easily affected by such medicine. If the bowels are irritable, we should administer the mildest aperient; and if he be subject to piles, we should not employ aloes, unless it be advisable to reproduce them, for many complaints follow the suppression of them. Before we determine

on the exhibition of an emetic, we should learn its general effects on the patient; for some people suffer so considerably during its operation, that in many diseases it may be productive of mischief.

A knowledge of the occupation, or mode of living, both with respect to exercise and diet of a patient, is also necessary, in order that we may point out the means of preventing a recurrence of the disease, when it is evidently the consequence of either of them.

As many diseases are produced by the mind, and as all are more or less influenced by it, we must also attend to the state of the mind as well as the body. In order to impress the importance of this more on the mind of my readers, I have in this edition introduced a chapter on the Passions. It is a fact, no less curious than certain, that we often meet with people who ridicule the idea of being ill, and are resolved not to submit to disease. A striking instance of this kind lately occurred within my knowledge. The servant of a gentleman, confined to his chamber by ague, was attacked with the same disease at the time he began his dinner. Determined, as he expressed himself, "that it should not conquer him," he immediately joined the other servants in getting in the harvest. By exertion he soon brought on copious perspiration, and the symptoms entirely left him. Two days afterwards, about the same hour, being seized with violent shiverings and sickness, he immediately left the table, and went to his work as before. After this he did not experience a return of the fit. Three of the servants were at the same time laid up with ague. An instance of an opposite state of mind I have noticed under the head of *CONTAGION*, page 96. No medical man of experience will doubt, that diseases are rendered more obstinate by suffering the mind to give way to them. If courage will secure a person against the contagion of an infectious fever, it is clear that mental exertion must be of great service under disease. Captain Bever, in giving an account of a fever that prevailed in the West Indies, observes, "and what is very remarkable, not one recovered that on the first attack gave himself up."

THE
SYMPTOMS, CAUSES, TREATMENT, &c.
OF
DISEASES.

OF AGUE.

THIS disease is also termed *intermittent*, because, after existing a few hours, (termed a *paroxysm*,) it is followed by a complete intermission, or absence of fever. During the hot fit, the febrile symptoms, as heat, fulness of pulse, &c. run higher than in any other fever. When it returns every day, it is called *Quotidian*; when every other day, *Tertian*; and *Quartan*, when it recurs on the first and fourth days, the two intervening ones being free. It is likewise termed *Autumnal* ague, when it happens in autumn, and *Vernal*, when in the spring. Other varieties are enumerated by authors; but as they resemble each other, both in the train of symptoms and indications of cure, and arise from the same cause, an enumeration of them can be productive of no practical utility.

This disease is divided into three stages; viz. the *Cold*, *Hot*, and *Sweating*. The *cold fit* begins with a remarkable shivering of the whole body, which, in an hour or two, is gradually succeeded by a degree of heat, with pain in the head, thirst, bitterness in the mouth, a quick pulse, constituting the *hot fit*; as the heat abates, a moisture is perceptible on the skin, which increases to a profuse perspiration, termed the *sweating fit*. The whole paroxysm generally occupies eight, and rarely less than six hours. Thus the fever, by its violence, soon wears itself out, the *cold fit* being succeeded by great increase of heat, or super-ignition, which, in the course of a few hours, terminates in copious perspiration. The intervals of recurrence of the fever depend on the state of the constitution, and particularly of the stomach and liver. (See *AGUE*, under the head of *INTRODUCTION*, page 166.)

CAUSES. — In consequence of the prevalence of this fever in marshy countries, it is generally attributed to the effect of marsh effluvia; and, as it has nearly disappeared in those countries where the land has been drained, the idea is probably correct.

TREATMENT. — The treatment of this disease must be regulated by the state of the constitution. Violent as the symptoms are, we find that it is succeeded by a considerable degree of debility, and, indeed, in almost every instance, preceded by it. Our object, therefore, in the absence of the fever, is to invigorate the stomach, and thereby increase the strength of the body; and for this purpose the Peruvian bark has been found to succeed so well, that is generally considered a specific. In all cases it will be advisable to premise an emetic of ipecacuan powder, and afterwards to clear the intestines by a full dose of the compound colocynth pill, No. 46. From inattention to this preparatory treatment, the Peruvian bark often disagrees with the patient, either by producing nausea, oppressing the stomach, or disturbing the bowels. After the pills have performed their office, the bark powder may be administered, as directed under the head **PERUVIAN BARK**, No. 48. page 50. The rhatany root has the important advantages over the Peruvian bark, of not oppressing the stomach, of being less liable to disagree with the bowels, and much more pleasant to the palate. It may be administered from fifteen grains to twenty-five, in the same manner as directed for Peruvian bark. (See **RHATANY ROOT**, page 89.) If purging should occur during the use of these remedies, five or six drops of liquid laudanum may be added to the dose three times a day; and in case of costiveness, five grains of rhubarb powder may be substituted for the laudanum. The diet should be generous, and the patient allowed a glass or two of Port wine every day after dinner. These directions are applicable to every variety of the disease.

In the treatment of this disease we must bear in mind, that the parts of the body most likely to be disordered by the violence of this fever, are the liver, spleen, and stomach; and that the liver is frequently tumefied, so as to render the exhibition of the bark highly improper. When, therefore, a yellow and bloated countenance, with a sense of fulness in the chest or belly, or pain in the region of the liver, indicates the viscera to be much affected, it will be advisable to prepare the patient for the use of the Peruvian bark or rhatany root, by a gentle dose of jalap and calomel, (see **CALOMEI**, page 39.) which should be repeated two or three times a week, according to its effects on the bowels, and the strength of the patient. He should also take a grain of calomel every night at bed-time for about a week, during the use of the bark or rhatany root, and apply

over the region of the liver the euphorbium plaster spread on leather. This application is a powerful auxiliary to the Peruvian bark.

Arsenic is a more certain remedy for ague than either the rhatany root or Peruvian bark. It is, however, too powerful a medicine to employ in domestic practice, and should only be administered in those cases which resist the treatment above recommended, or when the patient cannot be prevailed on to give those remedies a fair trial. In obstinate cases of ague, the use of the solution of arsenic only for one day will so far modify the disease, as to bring it under the influence of Peruvian bark or rhatany root. Ague sometimes produces, particularly in children, such a morbid irritability of stomach and bowels, as to render the exhibition of the bark or rhatany powder impracticable. In such cases the arsenic is a most valuable remedy. Some time since I was requested to see a child in Kent, in consequence of her medical attendants having pronounced her recovery very doubtful. She was only three years of age, had been affected with a quotidian ague six weeks and had for the last week refused to take any sustenance but milk and water. The Peruvian bark was the only remedy that had been tried, but it did not appear that it had been given in sufficient quantity. The belly was much enlarged, and the powers of the system so much reduced, that I had little hope of any treatment proving successful. I directed half a drachm of the white mercurial ointment (made as directed under the head of CALOMEL, page 39.) to be rubbed over the bowels twice a day, and six drops of the alkaline solution of arsenic to be given in a little water three times a day. In the course of two days she was manifestly better. On the third day she took some food, and experienced no recurrence of the fever. The patient having a most invincible dislike both to the Peruvian bark and rhatany root powder, the solution of arsenic was repeated for three days longer, when it was entirely discontinued, and a clyster of rhatany powder and broth administered twice a day for a few days, to strengthen the system, and prevent a relapse. The small quantity of one-eighth part of a grain of arsenic being sufficient to poison an adult, it is clear this medicine should not be given in substance, nor should it be continued longer than three days, if it be possible to avoid it, as organic disease of the stomach has been known to follow its use. In the first part of this work I have given very explicit directions for the use of the Peruvian bark and rhatany root in ague. (See PERUVIAN BARK, page 50.) It may not be amiss to repeat, in this place, that it is absolutely necessary to persist in the use of the Peruvian bark or rhatany root powder for a few days after the ague has left the

patient, and to discontinue it gradually, in order effectually to overcome the disposition of the system to a recurrence, for when the fever recurs after the interval of a week, it is more difficult to cure.

If the sentient powers of the brain be disturbed, occasioning general irritation of the nerves, a quick pulse, disturbed sleep, delirium, and during the intervals of the fit, an irritative fever*, a blister to the nape of the neck, and the application of cold water to the head twice a day, will also be proper.

Numerous instances of the influence of the passions on this disease have been published. In many parts of this country remedies of no medical efficacy whatever, but of that odious and disgusting nature which is calculated to make a strong impression upon the senses, — as live spiders, swallowed in that state, snuffs of a candle†, a dried toad worn in the bosom, — are still employed with success, as well as charms, with ceremonious pomp and affectation of mystery.

The young practitioner should be careful that he does not confound intermittent or remittent fever with the rigours or shivering which precede inflammatory fever, local inflammation, or suppuration. Pulmonary consumption is also generally attended with a fever of the intermittent type, in which Peruvian bark or rhatany root would prove injurious. The hasty exhibition of tonic remedies in cases of rigours, preceding pleurisy or inflammation of the lungs, has been productive of very serious mischief. If there be any doubt with respect to the nature of the fever, it will be prudent to postpone the use of a tonic medicine till its character be satisfactorily marked.

The diet should be generous. (See *GENEROUS DIET*, fol. 133.)

Remarks. — By the foregoing account of ague, it appears, that notwithstanding its violence, it is a disease of debility: that the best remedy is the Peruvian bark or rhatany root; and that in consequence of the viscera being disordered by the violence of the fever, and thereby rendered more obstinate, these remedies should be administered in full doses on its first attack, that the state of the bowels should be attentively watched. That a little calomel, by preventing or removing obstruction of the liver, &c. is very useful. That the irritation of skin excited by the

* When the paroxysm is succeeded by this fever, it is termed *remittent fever*. It being sub-irritative fever, the use of tonic remedies is necessary.

† In the 52d No. of the *Gazette of Health*, this article is much extolled as a remedy for intermittent fever, formed into pills with bread. The dose is five grains twice a day. It contains empyreumatic oil, to which its effect in this disease is probably attributable.

Euphorbium plaster, is also a powerful auxiliary. That when the nervous system is disturbed, (keeping up a degree of irritative fever during the intervals of the paroxysm,) the application of cold water to the head, and a blister between the shoulders, are also necessary. That arsenic should not be employed but in cases that resist the powers of the bark, and the other remedies specified. That the mind should be supported, and, with this view, charms or whimsical remedies may be countenanced.

OF APOPLEXY.

An apoplectic fit consists in a sudden deprivation of all the senses and of voluntary motion, generally in consequence of compression of the brain; which, when produced by an effusion of blood, or a distention of the internal vessels of the head, from an accumulation of *blood*, is termed *Sanguineous Apoplexy*; and when occasioned by an effusion of *serum*, which occurs chiefly in dropsical habits, *Serous Apoplexy*.

Of the Sanguineous Apoplexy.

This disease seldom occurs before the age of forty-five. The short-necked, the indolent, and such as are apt to indulge in full meals of animal food, and the free use of spirituous and vinous liquors, are generally its victims. Its frequent occurrence in this country is attributed to the great consumption of animal food and spirituous liquors with a sedentary life.

SYMPTOMS. — With the loss of the senses and *voluntary motion* there is in this disease, an *appearance of profound and continual sleep*, with snoring; laborious breathing; the pulse languid, while the arteries of the *head and neck* beat with an increased force; the face is red and bloated; the neck swelled, with a distention of the vessels, and *dilatation* of the pupils of the eyes. Although the *whole* of the body is affected with a loss of sense and motion, one side generally exhibits a greater deficiency of vitality than the other.

An apoplectic fit is generally preceded by a sense of weight in the head, and giddiness; frequent head-ache; bleeding at the nose; redness of the eyes; imperfect vision; a noise in the ears, like the ringing of bells at a distance, or the boiling of a tea-kettle; a transitory degree of numbness in the extremities; weakness of the knees; faltering of the voice; impaired memory; drowsiness, particularly after dinner; and disturbed sleep. These affections occurring in a person of a *plethoric habit* and short neck, may be considered *premonitory symptoms.*

CAUSES.—The chief cause of this species of apoplexy is a plethoric habit of body, with an over-distended state of the vessels which convey blood *from* the brain. It is sometimes brought on by whatever hurries the circulation, so as to increase the *afflux* of blood into the vessels of the head * ; such as *violent exercise* ; *passions of the mind* † ; *intoxication* ‡ ; *much straining* ; but it is more frequently occasioned by whatever impedes the *free return* of blood from the head : as a *tight ligature* or *handkerchief* round the neck ; *stooping down*, or *lying with the head lower than the chest* ; *looking behind*, or *upwards*, for some time.

It is a curious fact, that when the patient is not cut off at once, but lives for some time after the attack, the palsy of one side of the body, which generally follows an apoplectic fit, most frequently happens on the *opposite* side to *that* of the brain in which the effusion of blood has taken place ; *i. e.* if the *right* side of the brain be compressed, it will paralyze the *left* side of the body, and *vice versa* ; hence it often happens, that if a person lose the use of his *right* side by compression of the *left* portion of the brain, the *right* eye will not be affected, while the power of vision of the *left* will be nearly destroyed. §

It is very common, on examining the brains of persons far advanced in life, to find the coats of arteries in a diseased state. There is often a bony or earthy matter deposited in the coats

* The velocity of the influx of blood into the vessels of the brain is considerably checked by the *tortuous* course of the arteries by which it is conveyed ; and the resistance afforded by the long bony canal through which the internal carotid artery passes ; the impetus of the blood to the brain must, of course, be influenced by the *angle* these vessels make, which has been found to vary in different subjects. The direction of the canal, I believe, to be a frequent cause of apoplexy and other affections of the brain.

† Anger and fear, although opposite passions, are enumerated by Van Swieten as *frequent causes of apoplexy*.

‡ When sudden death takes place during drunkenness, it is by producing apoplexy. Among persons in the habit of drinking, fatal apoplexy is frequent. " This disease," observes Dr. Trotter, " being so frequent an attendant, or a consequence of excessive drinking, holds up a most awful warning to the inebriate." The idea of a human being rushing into eternity from a board of *gluttony, riot, and intemperance*, one would suppose sufficient to appal the most depraved and obdurate of mortals.

§ Some time since I examined the head of a gentleman who died of apoplexy. In the right portion of the brain, there was a considerable extravasation of blood, and on the left side, I discovered a tumour of a hard consistence, which proved to be the remains of an effusion which had produced an apoplectic fit about twelve months before ; — a circumstance proving that a rupture of a vessel in the brain is not necessarily fatal, and that the effused blood is not always entirely absorbed ; he was, however, afterwards very subject to *head-ache, giddiness, and drowsiness*.

of the greater, and sometimes lesser, arteries of the brain*, by which they lose a part of their *contractile* and *distensile* powers. The vessels of the brain, under such circumstances, are much more liable to be overloaded and ruptured than in a healthy state. Whenever blood is accumulated in *unusual quantity*, or the circulation carried on with *unusual vigour*, diseased vessels are very liable to this accident; and accordingly, in either of these states, rupture of their coats most frequently happens.

TREATMENT. — The *first*, and indeed the *principal* object to accomplish towards the recovery of a person in an apoplectic fit, is to unload the vessels of the head, by abstraction of blood from the jugular vein or a vein of an arm. † If the disease be produced by distention of vessels only, this will almost immediately afford considerable relief, and if this effect does not follow, we may conclude that an effusion of blood has taken place in the brain. Blisters should likewise be applied to the head ‡, and between the shoulders. The next object is, to *lessen the determination* of blood to the head, by increasing the circulation in the extremities, which is most effectually done by stimulating the feet and hands with a Mustard Poultice, No. 111, and by emptying the lower intestines, by administering the Laxative Clyster, No. 97, with the addition of half a drachm of aloes and two table spoonsful of common salt. Fifteen grains of the compound extract of bitter apple dissolved in peppermint-water, may also be exhibited as soon as the patient can swallow. The

* This diseased state of the blood-vessels of the head is, no doubt, often the cause of obstinate head-ache, lethargy, epileptic fits, and other nervous diseases in *elderly* people.

† Some practitioners recommend blood to be taken from the temporal artery. The distention being of the vessels containing venous blood, and not of the arteries, no advantage can arise from it. If the veins become overloaded, in consequence of weakness of the arteries, the extraction of arterial blood would prove very hurtful. In young subjects, arterial plethora prevails, and in them the extraction of arterial blood from this system is most beneficial; but in cases of apoplexy, elderly people are subject to venous plenitude, and this often to such a degree as to oppress the heart. In such cases, the extraction of blood from a vein seems to take a weight off the springs of life. On the contrary, if blood be taken from the temporal artery, the power of the heart and arteries to propel the blood through the longitudinal and lateral sinuses will be so far reduced as to increase the mischief. Hence the disease often suddenly terminates fatally after opening the temporal artery; and in no case has the author known it to prove beneficial. Arterial blood being chiefly abstracted by the operation termed cupping, it is also improper.

‡ If the compression of brain be occasioned by an effusion of blood, it is of great consequence, after unloading the system, to prolong the life of the patient in order that there may be time for the absorption of the effused blood; and with this view, the discharge and irritation of the blister of the scalp should be kept up.

body should be kept nearly in an erect posture, and the head supported in that situation, to favour the return of blood from the head. The sooner these measures are put in execution, the greater will be the probability of success. It has been a question much agitated of late, whether the exhibition of an emetic is proper on the *first* attack of apoplexy. The action of the arteries of the head being greatly excited during vomiting, an impetus is probably given to the circulation in the sinuses, so that instead of increasing the venous plethora of the brain, it may be the means of removing it. Certain it is that vomiting, which often occurs on the commencement of apoplexy, is generally beneficial. When it is evidently an operation of nature, and clearly affords relief to the brain, it should be promoted by warm camomile tea. Although it is generally right to imitate nature in her operations, to excite vomiting by medicine during an apoplectic fit is too bold a practice to adopt without the sanction of an experienced practitioner.

If the apoplectic fit be *clearly* produced by *excessive* drinking, the contents of the stomach should be diluted by drenching the patient with warm water. Vomiting in this case is always of great service. (See *Treatment of the Drunken Paroxysm*, p. 114.)

PREVENTION. — It is a common practice to administer a little brandy, or some other spirituous cordial, on the first attack of an apoplectic fit, and this has generally the effect of rousing the patient, and not unfrequently of removing any symptom, probably by increasing the action of the heart and arteries so as to propel the blood through the distended sinuses. In this respect its effects are the same as those produced by vomiting. The practice is condemned by practitioners, who attribute the congestion of the vessels of the brain to an increased afflux of blood to the brain, instead of languid circulation of nervous blood, or diminution of that power by which it is returned from the brain. A person disposed to apoplexy, or who has experienced an attack, should be particular in keeping the feet dry and warm, by wearing flannel socks, and the use of the horse-hair soles. He should guard against fullness by moderate exercise and abstemious diet. He should sleep with the head higher than the trunk, but not bent forward on the chest; the elevation should be *gradual* from the feet to the head. When affected with the *premonitory* symptoms, noticed page 193, a brisk purge of the Aperient Pill, No. 46, page 49, a blister to the nape of the neck or head, and putting the feet in warm water, will often obviate an attack. The Asarabacca Snuff, noticed p. 90, by increasing the secretion of the nostrils, and producing sneezing, will likewise prove serviceable. General blood-letting having a tendency afterwards to produce plethora should only be practised

when apoplexy is *immediately* threatened; the application of leeches to the temples will often supersede its necessity. A seton or issue in the nape of the neck, and the occasional use of the aperient, No. 46, by preventing congestion of the vessels of the brain, are the most powerful preventives. It would also be advisable to have the head shaved, and to wash it with cold water every morning. The application of cold water will not only check the determination of blood to the head, but, by strengthening the vessels of the brain, and allaying morbid irritation of that organ, will prevent turgescence. An overloaded state of the blood-vessels of the brain often arising from a diminution of power by which the blood is propelled through the veins, a reclining posture, and much sleep, are most powerful predisposing causes. By a strict observance of these rules, a paroxysm of apoplexy may be kept off for a great length of time, however predisposed the person may be to the disease.

DISTINCTION. — Apoplexy may be distinguished from profound sleep, which it much resembles, by applying the smelling salt, or sal volatile, to the nostrils, which will immediately rouse a sleeping, but will have no effect on an apoplectic person; and from a fit of intoxication, by the *paleness* of the face, the *smell* of the breath, and the *manner of living*; from epilepsy, by the stertorous breathing, diminution of the power of volition, and *absence* of convulsions. It is often extremely difficult to distinguish the insensible state that *follows* an epileptic fit from apoplexy; particularly as an apoplectic paroxysm is sometimes preceded by a violent convulsion, foaming at the mouth, grinding the teeth, and other convulsive motions of the body; but a knowledge of the *habits* and *constitution* of the patient will, in general, enable a practitioner to determine the comatose state after epilepsy from apoplexy. The *state* of the pulse and respiration, and the *paleness* of the face in fainting or swooning, will distinguish it from such complaints.

Of Serous Apoplexy.

Compression of the brain, producing apoplexy, is very seldom occasioned by an effusion of the *serous* part of the blood. When apoplexy occurs in a dropsical person, it may be referred to an effusion of serum, which for its removal will require the means suggested for the cure of sanguineous apoplexy, except blood-letting.* Cordials, which in the sanguineous apoplexy are

* Abstraction of blood has long been recommended by some writers in cases of serous apoplexy, and a few instances have been published, in which it evidently proved very beneficial, but the sanguiferous system was overladen in

not allowed, are in this case very proper. It is the consequence of extreme debility of the system, and generally terminates in death.

Another species of apoplexy, I am well persuaded, often occurs from wasting, or diminution of the substance of the brain, which occurs in elderly subjects. In this case, the blood-vessels become over distended with blood, for the purpose of filling the skull, in consequence of its bones not collapsing. The atrophy of brain continuing, a blood-vessel at length gives way, producing fatal apoplexy. — This disease may be distinguished from the plethoric apoplexy, by its being preceded for many months, and sometimes years, by general debility, both of body and mind. The subject has also a long neck, and is much emaciated. In this case it is clear, the loss of blood would be highly improper; a generous diet, the moderate use of wine and the use of a cordial stomachic medicine, as Huxham's Tincture of Bark, are most likely to prevent this species of apoplexy.

Recapitulation — Apoplexy in elderly people is produced by compression of the brain, either by considerable distention of the vessels which convey blood from the interior parts of the head, or an effusion of blood or of serum. It is more the consequence of a diminution of the power of the vessels, to return blood from the brain, than of an increased determination of blood to the head. The most active remedies should be promptly employed to lessen the quantity of blood, and to increase its circulation in the extremities. If the cause be over-distention of blood-vessels without effusion, the patient is so much relieved by the loss of blood, as to become sensible in a few minutes; and if this effect do not follow the operation, there can be no doubt but that effusion has taken place; in which case, the life of the patient should be prolonged by a perpetual blister to the scalp, and stimulating poultices to the feet, and by the exhibition of nutrient and stimulating emetics, that the absorbent vessels may have time to remove the effused blood. When the effusion is evidently serum, which may be known by the body being dropsical, and by its coming on gradually, bleeding is a very doubtful remedy and should be employed only under the direction of an able practitioner. Apoplexy generally terminating fatally, or by leaving the patient in a very impaired state of health, the preventive means should be carefully observed. When apoplexy occurs in a debilitated subject of a long neck and emaciated body, and particularly when the mental faculties have been gradually declining, the fit may be the consequence of wasting of the substance of the brain, in which case, the skull not

each case, and the effusion of serum was the consequence of increased arterial action.

In one case of serous apoplexy which occurred at the Hereford Infirmary, spontaneous bleeding from the nose saved the life of the patient, although he had for some months been afflicted with general dropsy.

having the power of collapsing, the blood-vessels of the brain are distended to fill up the cavity, till, at length, a vessel not admitting of further distention, gives way, and effusion of its contents ensue — generally destroying life in a few minutes.

OF ASTHMA.

When this disease is attended with expectoration, or discharge of phlegm from the lungs, it is termed *humoral asthma*, and when there is no such discharge, it is named *dry asthma*. Other species are enumerated by authors, but the real difference of asthma arises alone from differences of constitution of patients. The constitution of asthmatics exhibits certain peculiarities, in a high degree similar to hypochondriasis. This is often so very remarkable, that what will excite the disease in one patient, will often prove a means of relieving it in another. This peculiarity is particularly shown in the eight pair of nerves, branches of which go to the lungs and stomach. When these branches are in a state of morbid excitement or irritation, the muscles concerned in conveying air from the lungs become contracted so as to limit the expansion of the chest, and by retarding the circulation of the blood through the lungs, the blood becomes surcharged with carbon, occasioning a dark appearance of the lips, &c.

In a person predisposed to asthma, there are two classes of causes, which excite the paroxysm or asthmatic fit.

The first are those which disturb the nervous system in general, as passions of the mind, abuse of spirituous liquors, &c.

The second are those which act locally, as a heavy or irritating air. See ASTHMA, under the head of INTRODUCTION TO THE SECOND PART.

When the patient is of a delicate or tender structure, the sanguiferous system over-loaded, or the subject advanced in years, there is generally more or less of expectoration during the day-time. In such patients, the paroxysm, or fit, does not run high, in consequence of the secretion of mucus keeping down the morbid irritability of the internal membrane of the wind-pipe; but in a subject, whose constitution is more nervous than inflammatory, and the fibres rigid, the membrane secretes little or no mucus; and the paroxysm, or fit, is in consequence more violent. But in both these different situations, the state of the atmospheric air makes a considerable diversity on the character of the malady; for in summer the asthma of some patients will be humoral, and in winter the reverse. Hence it is the state of constitution and atmosphere that actually determines the disease; and whether a state of super-irritation or sub-irritation

of the system exists, is the chief point to determine, in order to regulate our mode of treatment.

Asthma is, in its appearance and symptoms, a disease so well marked, that it is unnecessary to notice its phenomena and mode of attack. The more or less sudden appearance of its fits, their recurrence at stated intervals, and the intervening suspension or alleviation of their violence, sufficiently characterise the malady. Sometimes, however, the difficulty of breathing continues throughout the day, with a slight exacerbation during the night.

On dissection, the morbid appearances in asthma are similar to those of the consumption of elderly people, except that there is, here, a greater extent of ossification of arteries. The death of an asthmatic is sometimes produced by apoplexy, in consequence of the over-distention of the vessels of the brain during the great impediment, or obstruction, to the return of blood from the head, that takes place in the course of the fit.

Since the publication of the last edition of this work, a physician of London has published a pamphlet on the causes of asthma, in which he very plausibly contends that the seat of asthma is in the brain, and that the irritation which commences in that organ gradually extends to the muscles in the chest and to the glottis; the work, containing many valuable instructions for the prevention and cure of the asthmatic fit by medicine, diet, &c. I recommend my asthmatic readers to consult it.*

TREATMENT. --- With trading physicians the varieties of remedies for the cure of asthma are as numerous as the species into which they divide the disease: they have their hosts of expectorants, of emmenagogues, chologogues, diaphoretics, relaxants, tonics, &c. &c.; but these are a mere list of inefficient names on which a peal is to be rung, to entitle them to the ultimate consideration of the case — a fee.

In the treatment of asthma, there are two objects in view; viz. to abate the violence of the paroxysm, and to produce a state of system which will not tend to aggravate or keep up the local irritation. The local affection is evidently of two kinds, viz. *super-irritative* and *sub-irritative*. In the former, the body is in a plethoric condition; in the latter, it is in a debilitated or nervous state.

With respect to the treatment of the *super-irritative* species, when the vitality of the body runs too high, the first step is to unload the blood-vessels, which is best effected by opening a vein

* The title of this work is "Practical Advice, dietetic and medical, to Asthmatics."

in the arm ; for the operation of cupping on the chest, by increasing or exciting irritation in the cuticular nerves, is often hurtful. An active purge will, also, be of service ; and, with these means, the warm or the vapour bath on Mr. Cochrane's principle, may be employed. When the vitality of the system is thus reduced, if the irritation be not sufficiently subdued or diminished, we must have recourse to local remedies. For this purpose the inhaling of the fume of the prepared stramonium of Mr. Fisher, during smoking, has been lately much employed, and, in many instances, I have known it to prove highly beneficial.

It has been insinuated, that the stramonium may disturb the general health of the patient : but it is not so powerful as tobacco ; and those who made the objection, must be ignorant of its real properties, and of the effects of anodyne vapours on animal life. Its virtues have, no doubt, like every popular medicine, been over-rated on one hand, and depreciated on the other. The opposition of quacks is unworthy of notice. Truth generally lies between the extremes ; and the opinions of the sordid and illiberal are equally unworthy of notice.

During the asthmatic paroxysm the inhalation of this anodyne vapour is often very efficacious, if the degree of irritation will admit of its being employed. When judiciously administered, it is an excellent remedy, and perfectly innocent. It wonderfully allays morbid irritability ; and the caloric which is taken with it, during the operation of smoking, powerfully promotes the secretion of mucus, and thus often speedily terminates the fit. The herb when used, should not be perfectly dry ; for in this case the smoke will not be sufficiently humid to convey a proper proportion of the anodyne quality, and, of course, from the absence of it, the matter of heat will increase the irritation. When employed with a view of preventing or palliating the paroxysm, the patient should begin to smoke it about an hour before the usual time of the recurrence of the asthmatic fit ; and in all cases this is the most preferable period, as very few can employ it when the fit runs high. If the mode of using the herb by smoking be unpleasant, which is generally the case to females, the vapours of a strong decoction of it (made by boiling an ounce in a pint of water) may be inhaled, by breathing over it, as soon as it is taken off the fire.*

* The decoction should be made in a close vessel, and taken off the fire as soon as it begins to boil ; for, by long boiling, its anodyne property is much injured, particularly the volatile parts, which only are serviceable in such cases.

The author has lately found the hedge-hyssop (*gratiola officinalis*) so very beneficial in asthma, that he was induced to recommend it to the attention of the medical profession in a small treatise on its virtues. This herb powerfully allays the morbid irritation of the lungs, promotes expectoration, obviates costiveness, strengthens the stomach, and increases the secretion of urine and perspiration of the skin. The oxymel of the herb, combined with an aromatic, as the caraway or anise seed, is the best form for exhibiting it in cases of asthma. Of this aromatic oxymel, one table-spoonful may be taken with the same quantity of barley-water every forenoon, between the times of breakfast and dinner, and in the evening.

The *Chænopodium Botrys* has been administered by some French physicians with great success in cases of asthma attended with flatulence. — The oxymel of the *colchicum* seeds, in the dose of two tea-spoonsful in an infusion of the *Chænopodium Botrys*, has been lately very much extolled as a remedy for irritative asthma.

The warm or vapour bath, employed two or three hours before the usual period of accession, will often prevent the recurrence of a fit. Whatever tends to quiet the nervous system, is of the greatest service; but such is the peculiarity of the nerves in asthmatic subjects, that active remedies should be employed with great caution. In many instances washing the head with warm water (on the principle of producing a conducting surface) has been of wonderful service; and, in other cases, sneezing, produced by the asarabacca snuff, has suddenly terminated the paroxysm.

All asthmatics, whether the system be in an increased or diminished state of vitality, are very subject to an accumulation of inflammable air in the intestines, which renders the occasional use of an aperient medicine necessary; distention of the stomach or intestines from any cause being a source of great distress to the patient, by mechanically preventing the free motion of the diaphragm. For the purpose of unloading the intestinal canal, the following pills may be administered once or twice a week:

Take of compound colocynth pill, one drachm; prepared calomel, six grains. Mix; and divide into fifteen pills, of which three may be taken occasionally.

When plethora does not prevail, and the body is evidently in a state of debility and relaxation, the object is to raise the system to a standard of health, see INDIGESTION; on doing which the local irritation generally subsides. In this case,

inhaling the fume which escapes during smoking a composition of equal parts of the dried hops and hedge-hyssop, about twice a day, has proved very beneficial by promoting expectoration and allaying morbid irritation of the membrane lining the air vessels.

To hasten the termination of the paroxysm, rubbing the scalp with camphorated sal volatile, and immersing the feet in warm water, are often useful. If the smell of the camphorated liniment be disagreeable, warm water may be applied to the head, which should afterwards be covered with flannel. The asarabacca snuff, by rousing the energy of the brain, will prove a powerful auxiliary in terminating the paroxysm.

In this species of asthma, the hedge-hyssop should be combined with a tonic medicine, as the liverwort or rhatany root, according to the degree of debility, in the following proportion; three table-spoonsful of which may be taken two or three times a day:

Take of the aromatic oxymel of hedge-hyssop, three ounces; decoction of liverwort, No. 117, page 75, or decoction of rhatany root six ounces.—Mix.

Vomiting excited in the evening will sometimes, by unloading the stomach, promoting expectoration, and increasing perspiration, prevent the accession of a paroxysm. For this purpose, the following draught may be administered:

Take of ipecacuan powder, fifteen grains; sulphate of zinc, four grains; oxymel of squill, two drachms; peppermint-water, one ounce.—Mix.

The application of Burgundy-pitch plaster or blister to the chest, I have never found beneficial in sub-irritative asthma; but, in a great number of cases, both have been of manifest injury; the latter increasing the difficulty of breathing, and the former rendering the nervous system more irritable.

Cold-bathing sometimes succeeds in this species of asthma; but it is only in its early stage; for when the legs swell, and the patient is much reduced, it is evidently hurtful. Seabathing is of as little avail; and in many instances, it has brought on the most distressing and long-continued paroxysms. On the contrary, the hot-bath, to one hundred degrees, is generally serviceable.

When, in the ultimate progress of the disease, the system appears much debilitated, so that swelling of the legs, great oppression of breathing, and bloated countenance, are predomi-

nant symptoms, a more powerful tonic will be required, which may be combined with a diuretic medicine; as the following:

Take of infusion of rhatany root, six ounces; prepared ammonia, two scruples; compound spirit of juniper, two ounces; tincture of the squill, half an ounce. — Mix. Three table-spoonsful to be taken every four hours, with the following pills:

Take of precipitated iron, two grains; extract of hemlock, three grains; gum ammoniac four grains; oil of anniseed, two drops. — Mix; and divide into two pills.

The bowels should also be kept open by the following pills:

Take of compound colocynth pill, one drachm; prepared calomel, ten grains; Venice turpentine, one scruple. — Mix; and divide into fifteen pills, of which three may be taken occasionally.

But if, on the contrary, the patient should be affected with diarrhoea, a frequent attendant on the last stage of this malady, the following may be substituted for the preceding tonic mixture:

Take of compound tincture of rhatany, one ounce; lime-water, six ounces; laudenham, thirty drops. — Mix. Three table-spoonsful to be taken every three hours, with the steel pills above prescribed.

If this mixture should not sufficiently restrain the affection of the bowels, six ounces of the white decoction, or chalk mixture, may be substituted for the lime-water.

In the last stage of *sub-irritative asthma*, when the pulse is oppressed, and the veins over-distended, the extraction of a few ounces of blood will afford great relief. In elderly persons the venous system is often overloaded, while the arterial system is in an opposite state. In such cases the loss of blood from a vein is often highly useful. It seems to give fresh vigour and energy to the body; and the effused serum, in consequence of this renovated state, is often absorbed, and the secretion of urine increased. The different secreting organs are also, as it were, set at work. Hence, spontaneous bleeding from the nose has proved highly beneficial. This practice is, however, in cases of extreme debility, a bold one, and should never be carried beyond five or six ounces.

When the legs are much swelled, a small blister, a little larger than a crown-piece, may be applied to the inside of each. The discharge of serum when continued, is very considerable, and never fails to afford most essential relief. Some object to blisters, as being apt to produce mortification; but I have never

known small ones to have such an effect. When the breath is oppressed by an effusion of serum in the chest, I have known blisters applied to the legs to afford the most marked benefit.

If, notwithstanding the employment of the above remedies a paucity of urine exists, one grain of calomel may be taken twice a day; and if the irritable state of the stomach or bowels forbid its use, friction on the surface may be substituted for an internal administration, as directed under the head of CALOMEL, page 39. In this stage of the malady, it is of the greatest consequence to keep up the action of the kidneys.

In every stage of the *sub-irritative asthma*, the diet should consist chiefly of animal food; the only vegetable matter that seems to agree here, is bread. The flesh of young animals is the easiest of digestion; in the dressing of which the patient may be directed by his own taste: in general meat underdone agrees best with the stomach.

A vegetable diet would appear to be indicated in this species of asthma, as tending more to quiet the system than any other; but there is no asthmatic who will be benefited by such a restriction; the quantity required to be taken, in order to convey sufficient nourishment, occasioning an over-distention of the stomach, a feeling of oppression, in consequence, ensues from the quantity alone, independent of the gas disengaged during the process of digestion, which accumulates in the intestinal canal, and increases the evil. Green vegetables are, above all, particularly hurtful; and of all vegetable productions, bread and the mealy potatoe agree best. If the state of constitution particularly require a vegetable regimen, it will be advisable to adopt the most nutritious and less bulky form, as the jellies of arrow-root, sago, tapioca, &c. Some time ago great objections were made to bread, on account, as it was supposed, of its being in a state of fermentation. By the process of fermentation it undergoes, the particles of flour are more minutely divided, and the process completely checked by baking, so that bread may be considered as similar to vegetable jellies in a hardened state. But on the subject of diet, it may be observed, that though rules are laid down, much must be conceded to the taste of the patient. With some I have found veal, however tender and easily digestible, to disagree with the bowels, and to act in a violent degree.

In respect to beverage, water is of all others the best; and should an aromatic be necessary, a little Jamaica ginger, finely ground, is preferable to any other, which may be taken in it. This will be sufficient to correct flatulence; and the system will not be disturbed by the pure element as by wine or brandy. Wine and spirituous liquors often afford a temporary relief; but

when the exhilarating effects of the cordials are past, they leave a proportionate depression, and an increased nervous state. In the far advanced stage a cordial beverage is sometimes necessary; in which case gin or brandy, diluted with water, may be allowed.

For breakfast, and the evening repast, the cocoa of the sassafras-tea is superior to any other article. This production is not only lighter than common cocoa, but, being slightly impregnated with the aromatic quality of sassafras, it sits on the stomach very pleasantly, and is a powerful preventive of flatulence. It is prepared for use in the usual manner of common cocoa. An account of this article is given in page 94.

The quality of the air is of the greatest importance to asthmatic patients; and the feelings of particular persons require an opposite regulation in this respect. To some, the application of cold fresh air, during the paroxysm, is absolutely necessary; while the feelings of others are best relieved by a situation near the fire-side: but in all asthmatic cases, it is necessary that the patient should be protected from an easterly wind. In general, too light air disagrees with patients under this disease: hence elevated situations are found hurtful. But such is the variable nature of the malady, that some cannot breathe in a light air, while others feel equal inconvenience in a condensed atmosphere. An uniform pure air is required by some, while the air mixed with the carbonic acid gas from a lime-kiln is more grateful to others. The sea air is often prejudicial, even independent of its temperature.

In this disease, walking and sailing have been much recommended as exercise; riding on horseback is, perhaps, most salutary, as the viscera are more exercised, and the nervous system rendered more quiet by it, in consequence of the mind being engaged in guiding the horse.

In regard to clothing, flannel next the skin is indispensable during winter: but in summer it tends to relax the body, and render the nervous system more irritable; it should, therefore, in this season, be changed for cotton.

In asthmatic cases, the state of the mind is one great and leading consideration. Mental perturbation I have already observed is, in itself, often an exciting cause of the disease, and never fails to aggravate, or prolong, the paroxysm; the patient, therefore, should be indulged in his particular fancy, or prepossession. The mind is here extremely irritable, and the least opposition, or restraint, often produces very depressing effects.

—PREVENTION.—Flannel worn next the skin, the occasional use of an emetic of ipecacuan powder, the oxymel or lozenge of

squill, and an issue between the shoulders, or in the arm *, will often succeed in preventing, and never fail to abate, the violence of a paroxysm of asthma, or to relieve the breathing during its absence in young or plethoric subjects. The diet should consist of broth, light puddings, fowl, veal, and other articles of tender fibres; and a little ginger used in the beverage, to obviate the flatulent effects of vegetables. Good old perry or cider is the best beverage.

Asthmatic people, in consequence of peculiarity of the nervous system, being differently affected by the atmosphere, they must consult their own feelings as to the place in which they should reside. A spacious room should *always* be preferred. When the breathing is very difficult, the nitrous gas gradually diffused in the air of the room, as already recommended for purifying the chambers of the sick, generally affords great relief, and will often prevent a paroxysm. Flowers and herbs, which purify the air in the *day-time*, should not be left in the bed-chamber during *night*, for reasons already assigned, page 99. (note). He should likewise choose a residence adapted to the different seasons of the year. For the winter season, Sidmouth, or Exmouth, in Devonshire, is probably the best retreat in this island for asthmatic subjects.

DISTINCTION.—Asthma may be distinguished from inflammation of the lungs and pleurisy, by being *chronic*, unattended with *acute* pain or *stitches* in the chest, and being free from fever. The returning of the paroxysms *at intervals*, the sense of constriction above the chest, occasioning the patient to get into an erect posture, and to fly for relief to the cold air, will distinguish asthma from other diseases of the lungs.

Recapitulation.—By the preceding definition of asthma, it appears that it arises from a morbid irritation of the nerves of the lungs; that whatever disturbs the general health brings it into action; that its treatment must be varied according to the state of the constitution, *i. e.* when plethora prevails, bleeding, and such remedies as are calculated to reduce the strength of the system are proper; in this state of body the disease is named *super-irritative*. But when the system is in a debilitated state, strengthening means are to be employed; in this case the disease is denominated *sub-irritative*. The sufferings of all asthmatics being increased by distention of the bowels, the state of the stomach and intestines should be particularly attended to. That the most efficacious remedy for allaying morbid irritation of the nerves of the lungs is the hedge-hyssop. That opium, by checking expectoration, constipating the bowels, and dis-

* If the subject be advanced in years, or affected with swelling of the legs, an issue or seton is improper.

turbing the general health, is generally hurtful. That when extreme debility prevails, the system must be supported by a generous diet, and the use of cordials.

OF BARRENNESS.

There are several causes of barrenness, which, from the delicacy of the subject, cannot be noticed in a work of this kind.* Disease of the ova, injury sustained by frequent miscarriages, general debility of the system, irregularity in the menstrual secretion, and morbid irritability of the womb, are its most frequent causes.

Whatever be the impediment, all that art can do is to improve the state of the general health, and to remove local obstruction or morbid irritability. With the former view, the patient may take one of the following alterative pills every night for a fortnight : —

Take of prepared calomel, seven grains ; mithridate, half a drachm ; to be well mixed, and divided into seven pills.

Three table-spoonsful of the following mixture may also be taken two or three times a day, and continued for some time after the use of the alterative pills : —

Take of the foreign extract of rhatany root, two drachms ; vitriolated magnesia, three drachms ; aromatic tincture of rhatany, one ounce ; pure water, twelve ounces. — Mix.

If acidity prevail in the stomach, two drachms of prepared soda may be substituted for the vitriolated magnesia ; or if the medicine disturb the bowels, the vitriolated magnesia should be omitted. After the alterative pills have been discontinued a week, cold bathing will prove beneficial. In case the patient be affected with fluor albus, the same topical management will be necessary as directed for that disease.

If the patient be of a cold phlegmatic constitution, instead of the mixture prescribed above, the following will prove more beneficial in giving strength and vigor to the system : —

Take of muriated tincture of iron, one drachm ; decoction of rhatany root, six ounces ; compound tincture of ditto, one ounce. — Mix. Three table-spoonsful to be taken three times a day. The alterative pills should also be taken as directed above.

* Those who wish to be acquainted with the different causes, &c. of barrenness, the author refers to the Supplement to the 53d Number of the Monthly Gazette of Health, which may be obtained at the Medical Hall, 170, Piccadilly.

The same rules as are given in cases of indigestion with respect to diet and exercise, should be strictly attended to by the barren lady.

If the cause be either general debility, irregularity of the menstrual evacuation, or an unhealthy state of the womb or ova, this treatment may succeed. When a mechanical cause exists, such as tumors or contractions, surgical aid will be necessary.

Anxiety and fretfulness, by increasing the general irritation of the nervous system, are very inimical to breeding.

Recapitulation. — Hence it appears that the cause of sterility is chiefly, if not entirely with the female; that the impediments to breeding are, diseased state of the ova or womb, morbid irritation of the nervous system, and general relaxation; that all that art can do to prepare the female for breeding is to keep the system in a state of health, and occasionally to invigorate it, or raise it above the natural standard by mild cordials. Under the head of INTRODUCTION TO THE SECOND PART, the pernicious effects of powerful stimulants on the animal body are particularly noticed.

OF BILIOUS COMPLAINTS.

Of late it has been a fashion to attribute a variety of disorders, particularly of the digestive organs, and of the head, to a redundancy of bile in the stomach: an idea evidently founded in error, and first broached by designing quacks, in order more successfully to impose their *antibilious* specifics on the credulous public; hence it is a common practice to have recourse to an emetic for the purpose of relieving the stomach of an accumulation of bile. During the operation, the liver being compressed by the action of the abdominal muscles, a quantity of the bile is forced into the intestines, and from thence into the stomach, which, on being brought up, the patient is led to suppose was in the stomach prior to the taking of the emetic. The matter, however, *first* vomited up, being evidently acid, is an indisputable proof that at the time of taking the emetic there was no bile in the stomach. The bile is also the *last* thing ejected. The advantage, therefore, arising from an emetic in such cases, is not by evacuating bile from the stomach, but by producing a greater flow of it into the intestines, rousing the action of the liver, and cleansing the stomach of slime and acid matter. In cases of indigestion there is generally a *deficiency* of bile, through a sluggish state of the liver; yet it is very common for such patients to complain of a preternatural collection of it in the stomach.

The liver is the largest viscus in the animal body, and therefore the conclusion is, that its office is a very important one.

The body is constantly undergoing a mutation. The meals we daily take are by the power of the stomach converted more or less into chyle, which is conveyed to the mass of blood, and by the arteries conducted to every part of the body for its nourishment. The old particles taken up by the absorbent vessels are also conveyed to the mass of blood; and hence it will appear obvious that a deterger of the blood, or some organ, is necessary to purify the blood. For this purpose the liver and the colon appear to be the principal organs, and as such the office of the liver is a very important one. Hence we may account for the salutary effects of medicines which increase the action of the liver in diseases of the skin; and many local, as well as constitutional disorders, which were very correctly attributed by the ancients to foulness of the blood — a doctrine ridiculed by the moderns, whose theories are founded on hypothesis instead of facts. Some late authors suppose that the bile promotes the digestion of the food; but if this were its use, it would be emptied into the organ in which the food is digested; instead of which, the duct, which conveys it from the liver, terminates in the intestinal canal. We also find, that when the bile is forced into the stomach by vomiting, or when it is excessive, as in cholera morbus, it disorders the stomach, and produces the most distressing nausea and vomiting.

By the change from a cold to a hot climate, the secretions of perspiration and bile are greatly increased. Hence Europeans, on their arriving in a hot climate, are very subject to redundancy of bile and disease of the liver. A continued exposure to the effects of heat at length induces a different state of the frame; the cellular substance of the liver becomes loaded with lymph, which increases considerably its bulk, and diminishes its power of action, so that the secretion of bile is at times nearly suspended. The gastric secretion is also vitiated. These effects sooner or later occur, accordingly as the person indulges himself in the use of spirituous or vinous liquors.

For the treatment of disease of the liver, and the disorders arising therefrom, in consequence of residing in a hot climate, or the abuse of spirituous or vinous liquors, the effects of which on the liver are very similar, see *INDIGESTION, and Chronic Inflammation of the Liver*. In my Tropical Medical Guide, I have entered very fully into the consideration of this subject, under the head of *Advice to European-Asiatics on their return to Britain*.

Dr. Dick, who obtained great celebrity for a successful treatment of chronic affections of the liver, during a long residence in the East Indies, and latterly in this country, was in the habit of recommending and taking a pill, which appears to be chiefly

composed of colocynth, scammony, and juniper, as the best remedy for those affections of the stomach and intestines, attended with an indolent state of the liver, which in this country are termed *bilious*. This composition, he observes, not only removes superabundant slime and matter from the stomach and intestines, but rouses the action of the liver and kidneys. These pills, which the author has certainly found very beneficial in his practice, are sold under the name of the Bengal purgative pills. See *Aperient Pills*, page 49.

In nervous subjects, whose constitutions had suffered from mercury, the alkaline tincture of fumitory in the dose of two tea-spoonsful twice a day in a glass of water, has proved very beneficial.

OF BLEEDING AT THE NOSE.

A spontaneous discharge of blood from the nose, in young people, arises from a plethoric state of the *arteries*; and in people far advanced in life, from plenitude of the *veins*. The discharge of blood from the nose is in general confined to one nostril; it occurs for the most part in warm weather, and is generally preceded by head-ache, redness of the face and eyes, noise in the ears, giddiness, frightful dreams, coldness of the extremities, &c.

TREATMENT. — In cases of bleeding of the nose, the first point to determine is, whether it be of a salutary nature, which, in cases of ambiguous fever, is often extremely difficult to decide: I have known fevers, pronounced by physicians of eminence to be putrid, suddenly terminated by a spontaneous discharge of blood from the nostrils, which at the time it happened was considered a most unfortunate occurrence. If it be preceded either by head-ache, giddiness, redness of the eyes, or disturbed sleep, or if occasioned by the violence of hooping-cough, or during labour, it may be considered of a salutary nature, and an indication for the adoption of medicines and diet which tend to unload and quiet the system. In young people, it may be considered a slight complaint, and scarcely worth notice, unless the discharge be so profuse as materially to weaken the body. If it arise from plethora, and the system be not sufficiently unloaded by the evacuation from the nose, the loss of blood from the arm will be proper, as well as the occasional use of the Aperient Mixture, No. 62, or the Neutral Purgative Salts, No. 2. After due evacuations from the bowels, the Cooling Powders, No. 89, may be taken two or three times a day, in *cold* water. Vinegar, diluted with water, should also be applied *cold* to the nostrils. If these means fail to check the bleeding, a dossil of lint, moist-

ened with vinegar, may be introduced up the nostril, which, by coagulating the blood, and compressing the ruptured vessel, generally succeeds, if properly managed. The person should be kept in an erect posture, and exposed to a *cold* air, and every thing carefully avoided that is likely to irritate the part, such as blowing the nose, speaking, &c. The diet should be *low*, and *taken cold*, and the extremities kept warm. If it arise from suppression of the menstrual evacuation, which in young women is frequently the case, aloetic purges should be employed, and the legs frequently immersed in warm water. When attendant on *low* fever, it happens from the *weak state* of the vessels, and should be stopped by the compressive means suggested above. When it occurs in *old age*, and is preceded by head-ache, drowsiness, and redness of the face, it should be considered a premonitory symptom of apoplexy, and the preventive means already recommended for that disease should be immediately resorted to.

Whatever will produce rigours, or slight shivering of the body, as a cold key to the back, sprinkling the face with cold water, &c. will often speedily check the flow of blood from the nose and other parts of the body.

Such as are subject to this complaint ought to be particular in keeping their feet warm, and in obviating plethora by moderate exercise and spare diet, and the frequent use of the Epsom or Rochelle salt, No. 2.

Remarks.—When a discharge of blood takes place from the nostrils, we should not have recourse to means of stopping it, without duly considering whether it be an operation of nature, or the consequence of diseased vessels. If the system of blood vessels be evidently in a plethoric state, the object of practice is to take care that the body be not too much reduced by it. When it occurs in young and healthy subjects, and particularly when preceded by head-ache or drowsiness, there can be no doubt of its proving beneficial. In elderly people in a state of health, it is generally salutary. In inflammatory fever it is always beneficial, and even in typhus fever it should not be hastily checked, unless the system be in a state of direct debility, and evidently sinking under the discharge. When the consequence of suppression of the menstrual evacuation, remedies should be employed to increase the circulation in the lower extremities.

OF BLOOD DISCHARGED FROM THE BLADDER.

When blood is discharged with the urine in a plethoric habit, the loss of blood from the arm, and the use of an aperient medicine, (See Castor Oil, No. 3,) are proper. The saline purgatives are in this case inadmissible, on account of their rendering the urine more irritating. The diet should be *low*, unless the patient be much reduced, or the discharge of blood

be the consequence of ulceration of the kidneys or bladder. In all cases, stimulants, as pepper, salt, &c. should be avoided.

When it is occasioned by the *mechanical* action of a stone in the bladder, or gravel in the kidneys or ureters, it will require the treatment recommended for those complaints. When ulceration is the cause (which is known from its being attended with a discharge of matter), the essential oil of turpentine, in the dose of twelve drops, in marsh-mallow root tea, has generally a very happy effect. The buchu leaves with gum-arabic, in these affections, has also proved particularly serviceable, as the following:

Take of infusion of the buchu leaves,* eight ounces; Tincture of ditto, six drachms; mucilage of gum arabic, three ounces. Three table-spoonsful of this mixture may be taken three times a day.

Recapitulation.—The treatment of a discharge of blood from the urinary passages must be regulated by the state of the constitution, for, like that from the nose, it may be of an active or a passive kind. In case of debility, which is generally attendant on ulceration of the kidneys and bladder, the buchu leaves are a valuable medicine: but if the system be in a plethoric state, the loss of blood from the arm, the use of castor oil, the Antimonial Febrifuge Powder, No. 37, page 44, and the warm bath, are proper. In all cases, a mucilaginous drink, as linseed tea, decoction of the marsh-mallow root, or of pearl barley, should be adopted.

OF BOILS.

The effects of boils on the constitution being generally beneficial, their suppuration should be promoted, (if the situation will admit of it), either by the application of the Gum plaster, No. 59, spread on leather, or the Poultice, No. 112; and in case of their being painful, they may be fomented with a strong decoction of poppy heads. After they break, they require only to be kept clean and defended from the external air by a mild poultice, or diachylon plaster, or spermaceti ointment spread on lint. The aperient Pills, recommended page 49, should be taken about twice a week, for at least three weeks: and if after the operation of the pills, the patient should be much reduced, the Tonic Mixture, No. 77, will have a good effect in strengthening the system as well as correcting the constitution.

When boils occur in a weakly constitution, the treatment recommended for indigestion will succeed better than purgatives and alteratives, by improving the general health. The inflammation producing boils commences in the cellular substance

* This infusion is made by steeping half an ounce of the leaves in a pint of boiling water for six hours.

beneath the skin. In elderly and irritable subjects this inflammation often terminates in sloughing or mortification; which in vivified habits, sometimes spreads through the cellular substance, when it is termed *carbuncle*. In this case the strength of the patient must be supported by Peruvian bark, wine, and a generous diet. Laudanum, in the quantity of five drops, administered in each dose of the Peruvian bark, by allaying general irritation, is a valuable medicine. Besides the application of the emollient poultice, No. 112, the inflamed skin should be washed twice a day with rectified spirit of wine.

Recapitulation. — Boils being symptomatic of an unhealthy condition of the constitution, the application of a lotion and leeches to disperse them is improper, unless it be situated in a place where suppuration would be attended with an unpleasant consequence, as the eyelids, the ear, &c. They may be considered as indicating the use of alterative aperient medicines.

OF BOILS OF THE GUMS.

CAUSES. — Boils of the gums are the consequences of a fit of the tooth-ache, cold, external violence, and a partial disease of the jaw-bone and decayed teeth.

TREATMENT. — When a boil arises from the irritation of a carious tooth, its extraction is necessary; and when from other causes, suppuration may be promoted by the application of a roasted fig; and after the matter is evacuated, the mouth should be frequently rinsed out with the Acidulated Gargle, No. 93, or the tincture of the rhatany root, diluted with water, as directed, page 95.

Partial inflammation of the gums terminating in suppuration or boils, is a very common complaint; and it is worthy of notice, that when they are allowed to suppurate, the interval of recurrence is much longer.

OF BURNS AND SCALDS.

Slight burns or scalds may in general be cured by the Liniment, No. 104, or Lotion, No. 102. If the person be of a plethoric habit of body, or if the system become feverish, however trifling the accident may be, it will be most prudent to empty the bowels, with either the Aperient Mixture, No. 62, or the Neutral Salts, No. 2, and to keep the system quiet by the Saline Mixture, No. 78. After the operation of the aperient medicine, five or six drops of Laudanum, No. 81, may be added to each dose of the saline mixture, particularly in case of much pain, or if the mischief be extensive. A low diet is necessary till the in-

flammatory symptoms have subsided, when the usual mode of living may be gradually resumed.

This treatment should be adopted, although the injury may not be very extensive; for if the constitution should be in an unhealthy state, it may produce considerable mischief. From inattention to this constitutional treatment, the most trifling accidents are often productive of the most serious consequences.

The immersion of the part in cold water as soon as possible after the accident, affords instantaneous relief; and by keeping it a few hours in that situation, the mischief is certainly much diminished. The oil of turpentine, in many instances, I have known to prove very beneficial.

When the injury is extensive or deep, mortification or sloughing will ensue, the result of which will depend on the state of the constitution. The advice, therefore, of a skilful surgeon should be resorted to in the first instance.

Remarks. — This short account of burns and scalds points out the propriety of attending to the constitution as well as the local injury. Experience has taught us, that the most trifling accident in a bad constitution often produces the most serious mischief.

OF BRUISES AND SPRAINS.

In cases of sprains, the prevention of inflammation should be attempted by the application of leeches, and afterwards the Discutient Lotion, No. 102; to which may be added, in case of much pain, half an ounce of Laudanum, No. 31. The Aperient Mixture, No. 62, should be taken occasionally, and the Saline Mixture, No. 78, if fever intervene. If leeches cannot be readily procured, and the inflammation runs high, the loss of eight or ten ounces of blood from the arm will be proper. A low diet should be strictly observed till the first or inflammatory symptoms have subsided.

Superficial bruises may generally be cured by the Cajeput Liniment, No. 5. or the Discutient Lotion, No. 102, with the use of the Epsom Salt or Aperient Mixture, No. 62; but if the part has sustained much injury, mortification may probably ensue, which in an elderly person may terminate unfavourably; such a case should therefore be referred to a practitioner in surgery.

The treatment of bruises and sprains, like burns and scalds, must be regulated by the state of the constitution. In an inflammatory habit, the slightest accident is sometimes productive of the most serious consequences; it is therefore judicious practice always in the first instance to guard against mischief. The

directions given for the prevention of sympathetic fever in cases of burns and scalds, are applicable to bruises and sprains.

OF CANCER.

In the Introduction, page 172, I have noticed the causes, nature, progress, and symptoms of this disease, from which it will appear obvious, that during the first stage, the object of practice is to rouse the action of the absorbent vessels of the part, so as to remove the accumulated matter, and to promote that process termed *mutation*, by which unhealthy parts are rendered healthy. To increase the action of these vessels, friction is certainly the most powerful means, the success of which must depend on the state of the absorbent vessels; but in employing it, great caution is necessary to carry it no further than merely to excite their action, and not materially to increase the heat of the part. Hence, previously to having recourse to it, the morbid irritation should be allayed by extracting blood by means of leeches; by a sedative application; and by unloading the system, if it should be in a plethoric state. In this stage, the best local application is a plaster, composed of mercury and a vegetable anodyne, spread on soft leather, according to the following form:

Take of strong mercurial ointment, gum ammoniac, and extract of hemlock, of each equal parts.

The gum ammoniac, after being reduced to a fine pulp by means of a little water, is to be blended with the other ingredients in a marble mortar. Over this plaster a dried hare-skin should be worn, with the hair surface towards it.

The constant action of this application as effectually excites the absorbents as friction. With this local management, it will be proper to conjoin such means as will keep up a healthy state of the system, so that the effect of the topical applications may not be frustrated by it; and for this purpose I have found nothing answer so well as the soda, which may be combined with a bitter, if symptoms of indigestion, or general debility, indicate its use. In prescribing this medicine, I direct six drachms of the soda to be dissolved in a quart of distilled water, and of this solution a wine-glassful to be taken three or four times a day, with a tea-spoonful of the compound tincture of gentian, or two tea-spoonfuls of the compound tincture of rhatany root, as the state of the system may require.

Soda not only destroys acidity (a prevailing symptom in weak stomachs), but preserves the system in general in a quiet and regular state. Particular attention should be paid to the regularity of the bowels; and when costiveness prevails, two drachms of Epson salts may be taken every morning, as circumstances

may require. In the 49th Number of the Monthly Gazette of Health, a cure of incipient case of cancer of a female breast appears, which was effected by the preceding means. The reporter attributes to the hare-skin a galvanic influence.

Should there be appearances indicating visceral obstruction, a grain of calomel should also be administered every or every other night (formed into a pill), and continued for ten days or a fortnight. See INDIGESTION.

The tincture of iodine in the dose of twenty or thirty drops twice a day, in a glass of the decoction of marsh-mallow root, has lately been highly extolled as a remedy for scirrhous tumours, and in the 79th No. a remarkable case of this disease appears, in which it was administered with complete success.

In diseases like the present, it is of great consequence to allay the general nervous inquietude of the habit. Hence the mind, as the most powerful agent in disturbing the nervous system, should be kept in a tranquil and steady frame. Anodyne and nervous medicines will accordingly, with such patients, be highly useful.

Equally with the use of medicines, the regulation of diet claims an important consideration, in regard to which we must take into the account the former habits of the patient and the state of constitution. If the constitution be not much reduced, vegetables should form the principal part of the regimen; while the best beverage will be distilled water, being free from any chemical combination that might irritate, or produce disturbance in the system, and the meat (which should be taken only once a day) should be fresh, and as little roasted or boiled as possible. But if the habit be much debilitated, a more generous diet will be necessary; for too low a regimen, by increasing general nervousness, may aggravate the disease.

When the process of decomposition has begun, and an open ulcer is making rapid progress, the chief attention must be directed to the declining health of the patient, under its ravages. To counteract the decomposing process, and suspend the ulceration by keeping up the vitality of the parts, the surface of the sore should be sprinkled with the phosphate of iron, as recommended by Mr. Carmichael, an eminent surgeon of Dublin, which the author has found to answer this purpose better than any other preparation. The best method of using it is to form it into a thin paste with water, and to apply it, by means of a hair pencil, to the surface of the ulcer every morning, over which a cataplasm of fine charcoal powder and oatmeal (in the proportion of one ounce of the former to four ounces of the latter) should be placed, of the temperature of new milk. The poultice should be regularly changed twice a day.

The strictest care should be paid in this stage of the disease to support the strength, and preserve the patient from sinking under the discharge and loss of rest.

If the system be free from fever, and the countenance pallid, from five to ten grains of the oxphosphate of iron may be administered two or three times a day.

Before decomposition has taken place, or the skin has ulcerated, preparations of iron are manifestly hurtful.

Wine should be allowed in such quantities as to give strength, but not to excite heat or fever; and laudanum should, at the same time, be occasionally employed to mitigate pain. (See *Laudanum*, page 35.) The mind should be soothed, and kept in a cheerful state, as nothing is so apt as peevishness and despair to produce irritation in the system.

These methods of treating this disease the author has found to succeed in several desperate cases, in which the operation of extirpation had been urged as the only and dernier resort.*

Compression of incipient cancer by rollers, &c. has lately been recommended by Mr. Young of London. I have never met with a case in which it proved of any advantage, but with many in which it evidently aggravated the disease, and materially injured the general health.

Remarks. — By the foregoing account of cancer, it appears that it is not a disease of the constitution, as generally imagined, but a local complaint, arising from diseased absorbent vessels; that on its first appearance, means should be employed to rouse the action of the absorbent vessels for the removal of the accumulated mass of glandular matter; that the progress to ulceration is the consequence of the absorbent vessels being too diseased to act effectually, in which case the tumour should be removed by the knife. That when the disease has advanced to suppuration, it may be cured by the application of preparations of iron, and by attending to the general health of the patient. That anodynes, as laudanum or hemlock, are serviceable by allaying the morbid irritation of the part, and in procuring rest.

OF CATALEPSY.

This very extraordinary disease attacks in fits at irregular intervals, which generally last only a few minutes, but sometimes continue two or three days, when it is termed by the ignorant

* There is not a county in England from which the author has not received the particulars of cases of cancer, which have been cured by this mode of treatment. The Rev. Mr. Pole, of Hampshire, relates a case which had been pronounced hopeless, in which it fully succeeded: and the Very Rev. Dr. Carter, Dean of Tuam, states that he has found it auswer in a great number of instances.

a *trance*. It is seldom succeeded by any derangement of the system; the patient falling suddenly down, and remaining senseless and motionless. The limbs readily admit of being moved, and continue in the position in which they are placed till the termination of the fit. Although all the senses seem entirely suspended, the patient will swallow with avidity any liquid put into the mouth. The countenance is florid, the eye-lids remain open, and the eyes seem fixed on some object. Sometimes there is a grinding of the teeth, and discharge of tears. The fit, sooner or later, terminates by sighing.

Dr. Cullen observes, that he never saw a case of catalepsy but what was counterfeited; and the same has been said by others. When it is not feigned, he thinks it must be a species of apoplexy; but there is a very evident difference between a fit of catalepsy and apoplexy.

CAUSES. — It may be brought on by passions of the mind: as fear, anxiety, anger: by intense thought, worms,* and excesses of any kind.

TREATMENT. — If the patient be of a plethoric habit, or the face very red, or the blood-vessels of the head and neck distended, eight or ten ounces of blood should be taken from the arm, or from the back part of the neck, by cupping. The Aperient Mixture, No. 62, and Antispasmodic Clyster, No. 98, will also be necessary, and the Mustard Poultice, No. 111, applied to the feet.

Two or three table-spoonsful of the following mixture should likewise be given every four or five hours: —

Take of assafoetida gum, one drachm; Hoffman's anodyne liquor, two drachms; spirit of sal volatile, two drachms; camphorated julep, six ounces. Mix.

The smelling salts, or the camphorated acetic acid, may likewise be frequently placed to the nostrils.

If the disease should continue notwithstanding the employment of these remedies, the head should be shaved, and well rubbed with the following liniment: —

Take of oil of amber, four drachms; spirit of hartshorn, half an ounce; oil of rosemary, two drachms.

Slight electric shocks passed through the head have in some instances been of service in weakly subjects. Blisters have not

* If the patient makes a noise with the teeth, the existence of worms in the stomach may be suspected; in which case the Basilic Powder, No. 36, should be administered in lieu of the mixture.

been attended with any beneficial effect. The Galvanic fluid, passed from the head to the feet in the direction of the spine, has in some instances been found very beneficial.

Recapitulation. — Catalepsy, it appears, is a disease of the nervous system, occurring in opposite states of the constitution, viz. in the plethoric and robust, as well as in the debilitated and reduced. That, like epilepsy, it depends on a peculiar state of nervous system; and like it, is brought into action by whatever disturbs the general health, either by increasing the vigour of health, or by reducing it. That the treatment must be regulated by the state of constitution. Where plethora prevails, bleeding and purgative medicines are chiefly to be depended upon; and when the system is in a debilitated state, stimulants, as the mixture of assafœtida, electricity, &c. may prove beneficial. This disease, however, like epilepsy and hysterics, is often aggravated by officiousness, and especially by frequent exhibition either of medicine or food.

OF CATARACT.

This is a species of blindness, occasioned by a diseased state of the lens or its tunic, preventing the transmission of the rays of light to the optic nerve. If the retina (the expansion of the optic nerve in the interior of the eye) be not diseased, vision may be restored, by either depressing the diseased lens, or extracting it entirely.

With respect to the advantages of depression over extraction, there is great difference of opinion. Many respectable surgeons give the decided preference to depression of the opake lens, an operation certainly less painful and hazardous than extraction, and generally answers: for if the lens happens to be too soft to be wholly depressed (which cannot always be predetermined), it is afterwards frequently removed by absorption, which may be promoted by the exhibition of a little mercury. The only objection to this operation is, that the lens will sometimes rise again to its former situation; but this is a very rare occurrence. Some of the first oculists recommend the extraction of the lens; but it must be allowed that the intention is too often frustrated by the inflammation and consequent thickening of the tunics of the eye; and it not unfrequently happens, that after the patient has gone through the pain of the incision, the lens is too soft to be removed entirely. The depression of the lens, on account of the operation being more simple, less painful, attended with little or no risk, and of succeeding as often as extraction, is entitled to the preference. Mr. William Hey, of Leeds, after thirty-three years' practice in diseases of the eye, states that *experience has led him to prefer the mode of depression, and*

very ably and satisfactorily confutes the arguments adduced by Baron Venzet and Mr. Ware in favour of extraction.

So many well-authenticated instances of the absorption of opake lenses, by the *internal* use of mercury combined with hemlock, having been published by respectable practitioners, the operation should in no instance be recommended till these medicines have had a *fair* trial. The following is the usual form for their exhibition :

Take of extract of hemlock, one drachm ; prepared calomel, fifteen grains. To be well mixed, and divided into twenty pills. One to be taken three times a day.

Of all the preparations of mercury, the author has found the oxymuriate to answer best in this disease. Eight grains of this preparation may be dissolved in an ounce of spirit of wine, of which ten drops may be taken in a wine-glassful of barley-water twice a day : after taking this solution a week, the dose may be increased to twenty, or even thirty drops, if the stomach will bear it. In the course of three or four weeks, the patient will be enabled to determine whether it be likely to prove of any utility.

The asarabacca snuff, by increasing the secretion from the nostrils, and exciting sneezing, may likewise prove very beneficial ; but if sneezing occasions head-ache, or pain in the head, it should not be provoked.

To the state of the general health of the body attention should be paid. If the digestive organs be disordered, the treatment recommended for Indigestion should be adopted. If the patient suffer from a determination of blood to the head, producing head-ache, redness of eyes, or giddiness, the loss of blood either by cupping or venesection, or a blister to the nape of the neck, will also be proper.

Electric sparks may likewise be applied to the ball of the eye once or twice a day.

The following remarkable case of the gradual disappearance of a cataract, is an evident proof that the diseased lens may be removed by absorption, or that the structure may undergo a change by keeping up a degree of irritation in the part.

Admiral Henry being afflicted with a cataract in both eyes, consulted Mr. Ware, who recommended extraction. The admiral agreed to his performing the operation on one eye first, and in case it answered, he promised to allow him to operate on the other. Unfortunately, however, he was not in the least benefited by it : for so much inflammation and thickening of the cornea succeeded, as entirely to destroy vision. The admiral having cured himself of many obstinate attacks of rheumatism

and gout by friction, and by rubbing the parts with a piece of wood, resolved to make the same experiment on the eye affected with cataract. After rubbing the ball of the eye, and at times gently beating it with a small wooden hammer (the eye-lids being closed), in a few weeks he found that he could discern a luminous body, and by continuing the practice, the diseased lens was so totally absorbed, that the gallant admiral was enabled to read small print. Since the publication of the eleventh edition of this work, the author has met with cases in which a similar treatment completely succeeded in removing the diseased lens. In the 11th and 12th Numbers of the Monthly Gazette of Health, this practice is illustrated by Dr. Balfour of Edinburgh. A representation of the instrument used for rubbing the eye and other parts is given in the chapter on Rheumatism.

Recapitulation.—The loss of vision in this complaint, arises from diseased structure of the lens, which in consequence of becoming opake, mechanically obstructs the rays of light to the optic nerve. In this case, lens may be considered as an extraneous body, and in order to restore sight, its removal is absolutely necessary. This may be done by mechanical means, and by nature. The mechanical means are two. The most simple, and not least successful, is that of depressing the diseased lens to the bottom part of the eye, from whence it seldom ascends, and, in course of time, is frequently absorbed, and in case it should rise again to its natural situation, after the cyst has been punctured in the operation of depressing, it is more likely to be removed by the absorbent vessels. The other method is, by making an incision through the coat of the eye, and removing the diseased lens entirely. This operation is much more painful, and more hazardous than depression, the object being sometimes frustrated by subsequent inflammation, and thickening of the transparent coat. The removal by nature is by means of the absorbent vessels, in which she is to be assisted by rousing their action by mercury, by friction, by sneezing, and by putting the system in a state of health.

OF CATARRH.

Catarrh consists in an increased irritation of the membrane lining the nostrils, fauces, and often the windpipe, attended with slight fever, and sometimes with cough. It generally begins with a sense of stoppage in the nose, a dull pain, and a sense of weight in the forehead, and stiffness in the motion of the eyes; and soon after a discharge of a thin fluid from the nose, and often the eyes, which constitute the complaint termed *coryza*. When the symptoms run high, and the disease is very prevalent, it is named *influenza*.

CAUSE.—This disease is evidently produced by long or sudden exposure to cold air.

TREATMENT. — When the circulation is not much accelerated, and heat of body increased, it is only necessary to empty the bowels by a gentle aperient medicine, as castor oil or jalap powder, to avoid exposure to the cold atmosphere, and to adopt a low diet; but if the symptoms run high, and the constitution be in a plethoric state, it will be proper to keep in bed, and take frequently some warm diluting drink, as barley-water, gruel or weak white wine whey, with the view of promoting perspiration. The Cough Mixture, No. 66, should also be taken every three or four hours; and if the patient be affected with *pains* in the chest, or head, or difficulty of breathing, or be predisposed to consumption, the loss of blood from the arm, and the application of a blister to the side most affected, or over the breast-bone, should not be delayed. The diet should be low, and the almond emulsion, or the compound barley-water, with a little liquorice root boiled in it, as directed page 88, should be employed as the common beverage. See **COUGH.**

Trifling as this complaint is generally considered to be, it is often the forerunner of some serious disease, as inflammation of the brain, lungs, or inflammatory fever; and in scrophulous habits, it is not unfrequently the exciting cause of consumption. The practice, therefore, of quieting the system on its first attack, by aperient and sudorific medicines, and, in plethoric habits, by bleeding, should in every instance, be attended to, in order to prevent mischief which would lay the foundation of an incurable malady.

OF THE CHICKEN, OR SWINE POX.

The eruption termed Chicken Pox sometimes appears without any previous illness, but most commonly it is preceded by slight fever. The vesicles are *always distinct*, and *less in size* than those of the *small-pox*; on the second day there is on the top of most of them a very small bladder, about the size of a millet-seed, containing a thin, colourless, and sometimes a yellowish fluid. This disease generally terminates in *three or four* days from the first appearance of the eruption, and is attended with so little danger as to require no restraint of diet, or medical treatment, till *after* the *crusts* of the pustules begin to peel off, when it will be proper to administer a dose of the Basilic Powder, No. 36, and to repeat it every third or fourth morning for a fortnight.

This eruption may be distinguished from that of the small-pox by being preceded by little or no disturbance of the system; by the *early* appearance of the vesicles on the top of the eruptions, the contents of which never acquire the *colour* or *consistency* of pus; by the pustules being *dry*, and covered with *crusts*.

on the *fifth* day; and by the eruption being generally first visible on the *back*.

OF CHILBLAIN.

This effect of cold on the skin is somewhat similar to that produced by heat, termed scalds and burns; the inflammation, from the injury done to the nerves and lymphatic vessels, is often very obstinate, from peculiar irritability.

The sudden restoration of heat to a part benumbed by cold, by placing it near the fire, is the most frequent cause of chilblains.

TREATMENT.—When a part is frost-bitten, it should be plunged into the *coldest* water, and afterwards gently rubbed with flannel, and if tumefied or inflamed, the best application is, the ammoniacal plaster, which will speedily restore the skin to health; but if this cannot be readily obtained, the part may be rubbed with Cajeput Liniment. When the skin cracks and discharges an *acrid* matter, poultices should be applied, but not for any length of time, as their *continuance* is apt to produce *fungous excrescences*. When the inflammation is reduced by these means, the application of a mercurial plaster spread on leather will effect a cure. An ointment composed of equal parts of nitrated quicksilver ointment and olive oil, is also a very excellent application for chilblains in every stage, and particularly when the skin is cracked or ulcerated. It should be well rubbed into the parts with the warm hand; but, if the skin be cracked, it may be spread on lint; and, in case of much inflammation, a poultice of bread and water may be applied over it.

People subject to chilblains should, on the approach of winter, wear flannel socks, and gloves lined with flannel; and if the heels be most liable to them, it will also be advisable to cover them, either with the ammoniacal or the mercurial plaster, spread on thin leather.

When the inflammation is extensive; like that attendant on scalds and burns, it not unfrequently terminates in mortification: in this case, the treatment must be regulated by the state of the general health of the patient. The observations on the constitutional treatment of bruises and scalds, equally apply to chilblains.

Recapitulation.—The mischief produced by intense cold (termed chilblains), like that produced by fire and bruises, should be attended to in the first instance; for, its progress depending on the state of constitution, neglect may be productive of the most serious consequences.

Chilblains being very obstinate of cure, the preventive means should be employed by those who are subject to them.

CHOLERA MORBUS.

This disease consists in excessive secretion of the bile, occasioning violent vomiting, purging, and pains in the bowels. The nervous system is much disturbed, attended, more or less, with thirst, cold sweats, fainting, coldness of the extremities, irregular and small pulse, and troublesome hiccough. It is most prevalent during hot weather; and, when the symptoms are violent, it often proves fatal in forty-eight hours.

CAUSES. — As the disease occurs most frequently in warm climates, and in cold climates, during the hottest months of the summer, it is very probably the effect of a *warm* atmosphere, which, by increasing the irritation of the liver, produces an excessive secretion of bile.* In people whose livers are naturally very irritable, it may be produced by whatever may disturb the general health, as excessive drinking, exposure to cold, &c.

TREATMENT. — All the secretions of the body, when considerably increased, possess more or less an acrid quality, and that of the bile in particular; the first object in the treatment of this disease is, therefore, to dilute the bile, by directing the patient to drink very plentifully of barley-water, gruel, or warm water, in order to prevent its irritating the alimentary canal. With the same view, a clyster of gruel may be administered twice a day: if the purging, vomiting, or pain in the bowels, be violent, from fifteen to thirty drops of liquid laudanum may be given in mint-water or tea. If the vomiting continue obstinate after the use of laudanum, one drachm should also be administered in a half pint of gruel or starch jelly, by way of clyster. If the bowels swell, the belly should be fomented with a decoction of camomile flowers, or the patient be put into a warm-bath for ten or fifteen minutes. A large blister should also in this case be applied over the region of the stomach and liver.

Dr. Douglas, in the Medical Essays, recommends a decoction of oat bread, toasted as brown as coffee, to be taken freely. He says that he does not remember that this decoction was ever vomited by any of his patients. Mint tea is also said to be very efficacious in this disorder.

* Whenever any of the secretions of the body are excessive, they always possess a morbid quality.

If laudanum be not retained in the stomach, it may be given with eight drops of the diluted vitriolic acid; and if this form be ejected, a pill of two grains of crude opium may be administered in their stead.*

When the vomiting is not very troublesome, Dr. Fordyce recommends from twenty to thirty grains of rhubarb powder to be given, and the patient afterwards to drink copiously of chicken-broth or barley-water.

When this disease proves fatal, it is by producing inflammation in the bowels. On the first attack we should therefore attend particularly to the state of the constitution. If the patient be plethoric, the loss of blood will be proper, for the determination of blood to the head, occasioned by vomiting, is, in such a habit, very likely to be productive of great mischief. If attended with pain in the right side, it will also be proper to apply a blister over the region of the liver, and to hasten its operation by previously rubbing the skin with the strong water of ammonia.

After the vomiting and purging have ceased, the stomach and bowels will require the use of some mild tonic medicine. For this purpose, the decoction of the Iceland moss, on account of the bitter being combined with mucilage, will answer best. To each dose, six drops of the diluted vitriolic acid may be added; and as soon as the nausea and feverish state of the system have entirely subsided, two teaspoonsful of the aromatic tincture of rhatany may be added with advantage; and in case of a tendency to costiveness, the bowels should be kept open by small doses of Epsom salt, or rhubarb powder.

Recapitulation.—This disease consisting in an excessive secretion of vitiated bile, attended with great irritability of the stomach and intestines, the object is to prevent its doing mischief to the intestinal canal. For this purpose, the acrid bile should be diluted by a mild drink. The next object is, to produce a state of the intestines not favouring inflammation, by reducing the system in case of plethora, increasing the circulation in the skin and extremities, by exciting inflammation of the skin of the belly by blisters, and by keeping the feet warm, and by allaying internal irritation by the use of laudanum, both by mouth and clysterwise. To promote these views, the warm-bath may also be advantageously employed. The patient should not encourage vomiting, as it is likely to keep up the irritation in the liver and intestines.

* In the 50th No. of the Monthly Gazette of Health, laudanum is recommended by Dr. O'Bryan to be administered freely. In every case in which he adopted this practice, the patient soon recovered. It prevents spasms and inflammation.

OF COLIC.

This disorder is known by a violent pain in the bowels, commonly about the navel, resembling various kinds of sensations, as of burning, twisting, boring, or tightness. The bowels are generally costive. When there is a violent evacuation of biliary matter, both upwards and downwards, it constitutes the disease termed *Cholera Morbus*.

It is often very difficult to distinguish internal morbid irritations or spasms from inflammation. If the pain be acute, and especially if it be attended or preceded by *rigors* and *fever*, inflammation may be suspected.

CAUSES.—Austere, acrid, or indigestible aliment taken into the stomach; the application of a poison, as lead, &c. and worms and costiveness, are the most frequent causes of this disease.

TREATMENT.—The first object is, to evacuate the contents of the intestines, by the use of Castor Oil, No. 3, with the Aperient Mixture, No. 62, and the Clyster, No. 97. The *spasmodic* affection of the bowels may be relieved by fomentation, or the warm bath, and the use of ten to twenty drops of laudanum, No. 31, the occasional exhibition of the Antispasmodic Mixture, No. 70, and the Clyster, No. 98. In case of fever, with a full pulse, the loss of blood from the arm will sometimes be proper to *prevent* inflammation of the bowels. The dose of laudanum may be increased or repeated according to the degree of pain, even during the time the remedies are employed to procure a stool. It will, however, in all cases, be most prudent to defer the use of this remedy till three or four evacuations be produced by an aperient medicine.

DISTINCTION.—The young practitioner will be able to distinguish colic from inflammation of the intestines, by the pain being *wringing*, and not of a *burning* sensation; by the *spasmodic* contraction of the *abdominal muscles*; by the *absence* or *trifling* degree of fever; by the state of the pulse; and by the *diminution* of pain upon pressure.

PREVENTION.—People subject to this disease should avoid much vegetable food and fermented liquors, guard against costiveness by a warm purgative medicine, as the Compound Tincture of Senna, No. 8, and should wear flannel next the skin.

Remarks.—The treatment of colic being very different to that of inflammation of intestines, it is of great consequence to determine the nature of the disease before a decisive practice be adopted. In cases of inflammation, there is generally fever, pain on pressing the bowels, a sensation of great heat in them, attended with thirst, generally preceded by rigors. When cholic occurs in a plethoric

habit, it may occasion inflammation in the intestines, and, therefore, in such case, it is safe and good practice to reduce the system by bleeding. Both in colic and inflammation, the warm-bath is a valuable remedy, and should be as frequently repeated as the strength of the patient will admit of. As this disease is a very serious one, the preventive means should not be neglected by those who are liable to it, and on the first notice of its attack, a warm aperient medicine should be taken, as the Compound Tincture of Senna, No. 8.

CONSUMPTION OF THE LUNGS.

According to the morbid appearances the lungs exhibit on dissection, this disease may be divided into three species.

The first is the scrophulous species, as marked by the existence of tubercles or depositions of scrophulous lymph in the cellular substance of the lungs.

The second is the membranous species, arising from chronic inflammation of the membranous lining of the wind-pipe and its divisions.

The third is the consumption of old age, often the sequel of chronic or asthmatic cough, attended with ossification of arteries.

Consumption of the lungs has been represented by some authors to be of an infectious nature; and this opinion prevails so strongly in the southern parts of Europe, that consumptive patients, particularly in Portugal, are often refused admittance into a lodging-house, when they arrive from this country. The bodies, also, of consumptive patients are not allowed to be opened, and even their clothes are ordered to be burnt immediately after their decease. But, in this country, I have never known an instance in which the disease could be traced as having derived its origin from communication with a patient in this state; and wherever suspicion of it has occurred, I have uniformly found such patients clearly predisposed to the disease; and I have never considered that those even in the closest intimacy with the person, were exposed to the smallest risk.

Of Scrophulous Consumption of the Lungs.

CAUSES.—Whatever is capable of producing irritation in the lungs, or occasions an increased determination to the lungs, will excite this disease in a scrophulous subject. Of these the most frequent is catarrh, or common cold.

SYMPTOMS AND PROGRESS.—This species of consumption generally comes on very insidiously. In consequence of the irritation in the lungs, scrophulous lymph is partially deposited in their cellular substance, forming what are termed tubercles;

which mechanically produce inconvenience, in proportion to their number and size, by limiting the powers of respiration, and obstructing the free circulation of the blood through them. During the exertion of coughing, in consequence of partial congestion of vessels, a rupture of their coats occasioning hemoptoe, or spitting of blood, is often produced.* Owing to the impediment to the free return of blood from the head, the sinuses of the brain become over-distended, occasioning head-ache, giddiness, disturbed sleep, and a variety of other symptoms.†

But, in many cases, deposition of scrophulous lymph in the cellular substance of the lungs, produces no other effects than those which arise from their mechanical action; such as confined breathing, interruption to the circulation, irregular action of the heart, over-distention of blood-vessels, unattended with cough or pain; and this will continue for many winters, before active disease takes place; in the same manner as we find a similar disposition in the glands of the neck, though it occasions their swelling, does not for many seasons come to actual suppuration: such depositions in the lungs seem evidently to require a certain state of constitution to induce suppuration. I have reason to believe, that in some instances the inflammatory action has been confined to one collection only; and the ulcer, in consequence, has continued for many years, without producing so much local irritation as to disturb the general health.

If the partial depositions do not proceed to inflammation, they will be so far absorbed during the summer, as not to affect respiration; but on the return of spring, a season when the vital powers run higher, and when, of course, latent constitutional diseases are generally brought into action, the inflammatory process takes place, and the pulmonary affection assumes a serious aspect. The cough, therefore, that occurs in spring and summer requires more attention than the winter cough.

When tubercles advance to inflammation, the patient becomes affected with cough, attended with pain and a slight fever,

* In every case of consumption that has followed hemoptoe, or spitting of blood, in which I have had an opportunity to examine the state of the lungs, I have uniformly found the same morbid appearances as when no such occurrence had happened. Spitting of blood, when it terminates in consumption, is always preceded by the symptoms indicating a loaded state of the cellular substance of the lungs, in consequence of deposition of scrophulous lymph.

† Drowsiness, head-ache, and giddiness, are generally the first symptoms of this disease.

marked with slight rigors or shivering; but very different from the hectic species which attends the last stage of the malady. The partial suppuration at length breaks, and empties its contents through a small aperture *, into the air-cells, or bronchial ramifications. The irritation, however, kept up in the lungs, occasions fresh depositions in different parts of their cellular substance, which advance to suppuration in a similar manner, till a great proportion of the substance of the lungs is destroyed, so as to be no longer capable of performing their important office in the animal machine. The mischief sometimes only commences in one lung, which is often nearly destroyed before it begins its attack on the other. When the mischief commences in the upper lobe, the cough and breathing are more troublesome than in the lower lobe; in this case the patient refers the seat of the disease more to the windpipe than to the lungs. When, on the contrary, it attacks the undermost part, adhesion betwixt the part and diaphragm is apt to take place, producing the most distressing symptoms of vomiting and hiccup.

The breaking of a partial suppuration, or in technical language of a vomica, is universally attended with relief; and the local irritation, as well as the constitutional symptoms, are so far suspended that the patient considers himself in a convalescent state. The breathing and expectoration become easier, and the appetite increases. A ray of hope is thus enjoyed, though it is a short-lived gratification. The matter emptied from the vomica into the bronchial ramification is, in the first instance, brought up enveloped in much mucus, and sometimes slightly tinged with blood, and for the most part, offensive to the taste and smell. The ulceration consequent on the suppuration in the cellular substance of the lungs continues to discharge a small quantity of matter, which is brought up with more or less mucus, thrown out by the irritated membrane of the bronchial ramifications and windpipe.†

* The ulcerated surface is not exposed to the action of a vapour taken into the lungs, as is generally imagined.

† The largest quantity of pus brought up, on the breaking of a suppurated tubercle, is not half a teaspoonful. The quantity which afterward continues to escape from the cavity is very trifling, and always brought up enveloped in mucus. Much has been said on the appearance of the expectoration, as determining the existence of ulceration; but the experiments made have been on the entire expectorated matter, without detaching the pus. When the internal membrane is much inflamed, the matter brought up will be more or less morbid or puriform. The pus may be separated, by agitating the expectorated matter in distilled water. The matter will gravitate in detached particles, and the mucus will ascend. Scrophulous pus may also be easily distinguished by a microscope.

When the inflammatory action is more confined to the outward surface of the lungs, it extends to the membranous covering, termed the pleura pulmonalis; and adhesions form between it and the membrane lining the chest, termed the pleura costalis; the consequence of which is, that acute pains, vulgarly termed stitches, are felt more particularly on coughing, or on certain positions of body *, especially on lying on the opposite side.

Collections of matter are often discharged between these last two membranes; and such discharge is uniformly marked by considerable irritation; for the matter being taken up into the circulation, a great constitutional disturbance is produced, which re-acts on the organic disease or affection of the lungs.†

By this succession of suppurations, so great a proportion of the substance of the lungs is destroyed, that their functions are imperfectly performed, and a due quantity of oxygen is no longer supplied to the system. Hence a variety of morbid symptoms is induced. As the constitution begins to give way, a fresh train progressively succeeds. If the small abscesses are unfavourably situated for emptying their contents, in order to be

* It may be worthy remark, that during respiration, in a state of health, the lungs are not expanded to their full extent, so that their substance may be loaded without materially affecting the general health. When emaciation has taken place, and the general health has suffered by hectic fever, the inference is, that the mischief is extensive. It is a common practice to direct consumptive patients to expand their lungs, by making a full inspiration, in order to ascertain whether their capacity be diminished by organic disease. The feeling of such patients induce them to do it in that cautious and slow manner, as to lead practitioners to suppose that they have the power of expanding their lungs to their natural extent. The volume of air expired, is the only criterion by which we are to judge of the extent of the expansion, and not by an *apparently* deep inspiration.

† I have met with cases of organic disease of the lungs, attended with an incessant short cough (termed, by patients, hacking cough), which, throughout the progress, was not attended with the least expectoration. The case of the late Princess Amelia was of this kind. Her Royal Highness suffered much from acute pains in the right side, attended with a dry short cough. From the use of setons in the right side, she derived the most essential relief. The pains gradually abated, the cough ceased to be troublesome, and she was so far recovered, that, by the urgent persuasion of one of her medical attendants, she visited the sea-side for the purpose of establishing her general health. The journey, unfortunately, brought on the irritation in the chest; and symptoms, in a short time, ran alarmingly high. The recurrence of diseased action, in a part which has recently suffered by a most formidable attack, is more to be dreaded than the primary affection; and the unfortunate termination of this case points out the propriety of an old maxim, of "letting well alone." By officiousness to accelerate the complete recovery of patients (particularly after organic diseases of the lungs), much irreparable mischief is frequently produced.

expectorated, the matter taken up by the absorbent vessels passes into the circulation, and the fever termed hectic is thereby chiefly induced, being a very different species of fever from that which attends the commencement of the disease, or the suppurative process. Instead of slight rigors, the patient is attacked with an accession of shivering, often amounting to ague, followed by increased heat, and a long and copious perspiration; after which, the head-ache gradually goes off, and the appetite returns. But when, instead of this unfavourable state, the matter is properly evacuated into the bronchial vessels, and brought up by cough, the hectic fever does not come on till within a week or two previous to the dissolution of the patient, and even then is often very slight. When the matter enters the mass of blood, it often passes off in considerable quantity by urine, rendering it turbid and offensive.

When the lungs, by the progress of the disease, become no longer capable of performing their office of decarbonizing the blood, the hectic fever assumes its peculiar character. Nature seems to make a diurnal effort to assist the lungs by a process in the skin, especially those parts where it is thinnest, viz. the lips, the cheeks, and the internal surface of the nostrils: and, as the disease advances, this process extends over the face, the nose, the ears, and external part of the fingers, producing redness, and heat *: while the other parts not exposed to the air continue pale and cool. But when the functions of the organs immediately engaged in the mutation of the body are more interrupted, and the body loses its muscular power, the morbid irritation increases, and extends through every part: the intestines inflaming, the patient is affected with diarrhoea, and the nocturnal perspiration becomes more copious and offensive. In females, the womb ceases to perform its monthly secretion †; but often after this interruption the patient becomes pregnant; and if she have strength of body to go beyond the third month, the disease of the lungs is very frequently, in some degree, suspended, probably in consequence of the increased determination of blood to the womb.

* Increased redness and heat of the skin, Dr. Beddoes, and others, supposed to arise from the blood being over-oxygenated; thus inferring, that the lungs, after losing a proportion of their substance, perform their office better than in a state of health. The arterial blood, taken during this stage of the disease, plainly shows a deficiency of oxygen.

† The cessation of the menses is generally considered of a very unfavourable import; but I have known several instances of the recovery of patients after an interruption of three months.

As the debility of body increases, the circulation to the extremities becomes languid; the evidence of which is conspicuous in the absence of fever, by a great deficiency of heat; the legs, in consequence, swell; the nails are pale, and from the same cause, of a defect of vitality in the hairy scalp, the hair becomes dry, and is so easily eradicated as to be removed in quantities by the mere operation of combing. The eyes also assume a pearly colour; and generally, some weeks prior to the fatal close of the disease, a degree of irritation takes place in the internal surface of the windpipe, or trachea, attended with exudations of lymph, termed aphthæ, which spread to the palate, and often extend down the gullet, and even throughout the intestinal canal. This symptom increases much the suffering of the patient, by producing sore throat, pains in the bowels, and obstinate purging, sometimes tinged with blood, and attended with tensions of the abdomen. The brain seems to be the last part that gives way; and hence the intellectual functions remain unimpaired, till within a few hours of dissolution. When the powers of life begin to lessen, the patient feels a disposition to dose, and seldom enjoys sound sleep. Towards the termination, he is generally heard to mutter; and it is not unusual for him to be much affected with the night-mare, and even to attempt to walk in his sleep.

It has been the opinion of some writers, that consumption is connected with, or has its origin in, a diseased liver; and of others, that it is the effect of a disordered state of the digestive organs. I never met with a real consumptive case in which the liver exhibited the least mark of disease; and, latterly, I have had the opportunity of examining the livers of several patients, whose cases had been pronounced diseases of the liver. Notoriety is the order of the day; and to obtain this, medical men, in obscurity, have broached the most ridiculous doctrines respecting disordered digestion.

In the advanced stage of pulmonary consumption the appetite is, in general, very good, and symptoms of indigestion rarely occur. The appearance of the faeces, also, give evident proof that there is no defect either in the liver or in the stomach; for they show that the food is well digested, and that the secretion of bile is healthy.

TREATMENT.—This disease is generally considered by the profession as incurable. Every disease has its incurable stage, that is, when by neglect and maltreatment the local mischief has considerably advanced, and the system has materially declined.

In directing the treatment of consumption in its first stage, it is of importance to ascertain, whether the state of the constitution is such as will favour the progress of malady. If the sub-

ject be plethoric, or the heat of the body above its natural standard, it will be necessary to lessen this morbid state, by extracting blood; the most beneficial method of doing which is by cupping. By this operation both arterial and venous blood is extracted, and a degree of external irritation at the same time produced, that tends to produce a diversion in favour of the internal disease. The intestinal canal should be cleared out by the Epsom salt (in small doses), either dissolved in whey or almond emulsion. This medicine should be occasionally repeated; for nothing so much aggravates the disease as costiveness.* For the purpose of exciting a degree of external inflammation, or what is termed counter-irritation, a stimulating plaster, as the Euphorbium, should be applied, either between the shoulders, or over the breast-bone, and if one side be evidently more affected than the other, one may also be applied over the seat of the pain. If this plaster should not produce an eruption of the skin, it should be rendered more active by sprinkling over the surface a little emetic tartar. When the eruption has matured, the part may be dressed with the spermaceti ointment, for two or three days, according to the degree of inflammation present, when the plaster may be re-applied after the surface of it has been scraped off, so as to remove the emetic tartar. This plaster I have found more efficacious than either blisters or a seton.

Another important auxiliary is, the promotion of the secretion of the skin, termed perspiration. By this measure we not only reduce the increased temperature of the body, by producing a conducting surface; but remove the morbid fulness of the vessels of the lungs by occasioning a determination of blood to the surface. The medicines termed diaphoretic, answer best, when combined with a vegetable anodyne, which should be proportioned to the degree of irritation or cough. The following mixture I have found to answer this purpose best:

Take of golden sulphur of antimony, twenty grains; extract of white poppy, half a drachm.—Mix; and divide into ten pills, of which one may be taken three times a day, with three table-spoonsful of the following mixture.

Take of the carbonate of potass, one drachm; almond emulsion, six ounces.—Mix.

If these medicines fail to produce perspiration in a sufficient degree, it will be proper to have recourse to the warm bath at

* Costiveness is generally a forerunner of the disease, and, in many cases, seems to have been the principal exciting cause.

about ninety-eight degrees. In the early stage of the disease, I have found this remedy so highly beneficial, that I regularly employ it, even where there is sufficient perspiration. Warm water to this degree acts as a fomentation, and promotes an healthy action throughout the body.

If the symptoms indicate a high degree of inflammatory excitement in the lungs, as incessant cough, short breath, shooting pains in the chest, the following mixture may be substituted for the solution of the aerated kali, in almond emulsion.

Take of oxymel of the colchicum seeds, half an ounce ; gum arabic, two drachms ; emulsion of bitter almonds, seven ounces.

Prussic acid and colchicum seeds, two table-spoonsful to be taken every third or fourth hour.

When by these means the feverish state of the system is subdued, and the irritation of the lungs is in consequence abated, the hedge hyssop may be administered with considerable advantage. Since the publication of the last edition of this work, the author has given this herb a very extensive trial in diseases of the lungs, and the success that has uniformly attended its use, induced him to publish a small treatise on its virtues. The best form for its exhibition in pulmonary complaints, is the oxymel, of which a dessert or table-spoonful may be taken twice a day in a wine-glassful of the decoction of Iceland moss, No. 117. This mixture will facilitate expectoration, quiet the nervous system, promote digestion, and keep the bowels in a regular state.

In attending consumptive patients, every practitioner has it strongly impressed upon him, by the patients, that if it were not for the cough, they should soon be well. In such affections of the lungs, we should ascertain whether the cough bears a proportion to the quantity of mucus expectorated : if there be little expectoration, or if the cough be dry, the conclusion is, that a morbid degree of irritation of the internal lining of the windpipe and bronchial ramifications exists. It is, in this case, of the greatest consequence to allay it, as the cough must tend to increase the organic mischief. With this view, three or four drops of laudanum may be taken in each dose of the oxymel of the hedge hyssop. The Prussic acid, in the dose of one or two drops, two or three times a day, in barley-water, has lately been much recommended by Dr. Majendie, of Paris, and Dr. Graville, of London, to allay cough, and check the velocity of the circulation ; and it appears by their reports, that in some instances of incipient consumption, it has succeeded. The trials I have made of it, have by no means confirmed the favourable statements of Dr. Majendie.

The inhaling of medicated vapours, particularly of tar and the resinous gums, has been recommended with the view of producing healthy digestion of ulcers; but as the ulcerated surface of a broken vomica is not exposed to the action of the vapours received into the lungs, as the practitioners who suggested the remedies supposed, they cannot succeed in producing such a desirable effect.

Since the publication of the last edition of this work, Dr. Crighton has communicated to the profession some cases of pulmonary consumption in which he employed the vapour of tar with success. Dr. Forbes, who gave this remedy a fair trial, found it not only inefficacious, but decidedly injurious.

Dr. Steward in a periodical work states, that he has had recourse to sponging the chest with cold vinegar and water with very great advantage. In all the cases it has been employed with which I am acquainted, this practice has uniformly increased cough and difficulty of breathing. The Doctor's mode of treatment is given in the 91st No. of the Gazette of Health.

In America, mercury has been found, by Dr. Rush, to succeed in curing pulmonary consumption. Before we venture on the exhibition of this active remedy, the system should be nearly free from fever. When the patient is in a state of convalescence, a small quantity of mercury introduced into the system generally succeeds in hastening the recovery of the patient; but when the disease is in a state of progress, it uniformly increases the irritation of the lungs, and, of course, the cough and hectic fever. The exhibition of an emetic dose of ipecacuan powder two or three times a week, is also much extolled as a remedy for consumption, by producing a determination of blood to the surface of the body and to the extremities, and by relieving the lungs of a quantity of mucus, in consequence of being compressed by the action of the diaphragm during vomiting.

REGIMEN. — The diet should be such as tends to keep the system in a quiet state. Spirituous and vinous liquors should therefore be strictly prohibited. In the first stage of the disease, a diet of vegetable jellies, such as the arrow-root, tapioca, sago, oatmeal, and light puddings, and milk, according to the taste and inclination of the patient. When the system has given way to the disease, animal food is absolutely necessary. The meat of young animals should be preferred, and taken in as raw a state as the stomach will bear it. The use of animal food is prohibited by many writers on this disease; but in the advanced stage of the disease the patient will sink in a most rapid manner if he be deprived of it, and thereby lose the chance of recovery. A strong objection against an entire vegetable

diet, is, the quantity requisite for the support of the system is so great, as to distend the stomach to that degree, as to oppress the lungs. Even when animal jellies are used, I have found them not to digest so readily in many stomachs as meat in an underdone state.*

DRESS.—The patient should, from the first attack, wear flannel next the skin, to keep up a sufficient secretion of perspirable matter, and prevent the injurious effects which sudden transitions are apt to produce. The highest parts of the house will be the most eligible residence, and particularly for sleeping.

Exercise in this disease should be chiefly of the passive kind. Hence the advantage which has been derived from riding on horseback, and from a sea-voyage. The exercise of digging in gardens is much extolled by some writers; but this exertion of body is too great; and the moist exhalations from the earth are likewise injurious. Swinging, which is similar to sailing, is often beneficial. When the chest is by deformity contracted, which is often the case with consumptive patients, the use of the dumb-bells has been recommended with the view of opening or widening it. But the capacity of the chest being adapted to that of the lungs, no advantage could arise from it, even were it possible to expand the chest; while the exercise, by hastening the circulation through the lungs, is apt to do mischief; and, in some cases, I have known spitting of blood to follow it to an alarming degree. Such exercise can be only useful when the person is young, and, at the same time, free from any attacks of the disease.

Sudden transitions, I have already stated, are highly injurious to consumptive patients; and when the patient passes from a cool air to a heated room, the approach should be made gradually, for the lungs are then more susceptible of the stimulus of heat.

Air is a subject on which much has been said, with respect to its influence in affections of the lungs, and a particular prejudice exists against the air of great cities. In the first stage of the malady, if the air possesses no stimulating property, it is of little consequence; but after suppuration has taken place, it is of the first importance to make a change, from a crowded and confined situation to a salubrious spot. The air being generally in a constant state of rapid motion, the air of large places soon undergoes a change. The air of Devonshire, in conse-

* No set of people eat more animal food than butchers, and yet they appear to be exempt from consumption of the lungs, although their bodies are much exposed to a damp air.

quence of being sheltered from the baneful influence of the east, is comparatively mild, and the ground healthy. Others prefer a situation by the sea-side; and, in autumn, this is often serviceable; but, in winter, the neighbourhood of the sea, in Devonshire, is the most desirable.

A plan has lately been proposed, to cure consumption by keeping the patient in an atmosphere of a regular temperature, by conveying into the room heated air. By keeping up a certain degree of evaporation from the body, it may prove beneficial, but the inhalation of warm air aggravates the disease of the lungs, and is otherwise unpleasant to the patient. In the last stage particularly, it accelerates the progress of the disease. It is on this account that consumption proves so fatal during summer in this country, and in hot climates. Cold air, although hurtful by checking the secretion of the skin, is very pleasant to a consumptive patient, and, by conducting superabundant heat from the lungs, tends to quiet the disease. A consumptive patient also requires the room to be well ventilated. The changes in the temperature of the atmosphere during winter, by producing irritation in the lungs, is the exciting cause of consumption, and the heat of summer hurries on its incurable stage.

Patients in the last stage of this disease are sometimes free from the most unfavourable symptoms, as swelling of the legs, &c. while others, whose lungs have not sustained any considerable mischief, exhibit a train of the most discouraging appearances. We cannot, therefore, determine the extent to which the disease of the lungs has arrived, merely from external observation. It is too common for medical men, on the first sight of such a patient, to declare his condition hopeless, and consign him to a mere palliative treatment; but, in all cases, I would strongly advise that an effort should be attempted for a recovery, particularly as the remedies will diminish his sufferings, should they not succeed in effecting it. I have met with many patients whose cases had been pronounced incurable, and really appeared to be hopeless, who, to my astonishment, were, in the space of a few weeks, happily restored to health.

In consumption, as in some other diseases, it not unfrequently happens, on relieving the affection of the lungs, disease takes place in some other part of the body; and in proportion as the original affection declines, it advances. Such attacks, if not in a situation to endanger life, should therefore not be checked by repellants. I have known several instances of pulmonary consumption to terminate in swellings of the knee and elbow joints.

Even after the disease is apparently cured, and all morbid action suspended, the patient is not to be considered out of the

hands of the practitioner. The state of body which favours its recurrence, is still to be further corrected; and for this purpose, an issue is the most effectual remedy, which, with the occasional use of the Epsom salt, will keep down that fullness and inflammatory state, which favour the attack of the malady. These, with a low diet, will, in the course of two or three years, entirely destroy the predisposition existing in the habit.

Membranous Consumption.

This species consists in a chronic inflammation of the internal membrane of the windpipe and bronchial ramifications.

In the attack of this species of consumption, the cough generally commences with slight hoarseness, a tickling sensation in the windpipe, and an expectoration of a thin frothy mucus of a saltish taste. The inflamed parts at length becoming thickened or slightly excoriated; the mucus exhibits a puriform appearance, and is sometimes tinged with blood. In this stage the expectorated matter is generally of a sweetish taste. In the progress of the disease the patient is seldom attacked with pains in the chest, and can even make a deep inspiration without experiencing any sensation of oppression, or inconvenience, or exciting cough. If the system be in a plethoric state, these symptoms will be preceded by more or less fever. The hectic state does not make its appearance in this species till the system has considerably given away, and the patient become much emaciated, and sometimes not till within a week of dissolution. This disease is readily distinguished from the scrophulous species: the latter commencing, from the first moment of attack, with confined breathing, followed by a dry cough; while the former is attended with a free and undiminished state of respiration, and is peculiarly marked also by the saltish expectoration.

On opening the bodies of those who have died of this species of consumption, the lungs do not collapse, in consequence of the cellular substance being loaded with serum, and the air-cells and bronchial ramifications with mucus. From this circumstance of the substance of the lungs being entire, an objection may, perhaps, be made to ranking the complaint under the term of consumption of the lungs, which signifies, properly, a diminution of the substance of the lungs. But, as the body is considerably emaciated, in consequence of the pulmonary affection, there can be no impropriety in assigning to it this appellation, and classing it under this form of disease.

In regard to the particular treatment of this species, it may, in general, be cured by the treatment recommended for catarrh.

In whatever stage it comes under the care of the practitioner, his first attention must be paid to the state of the constitution. If the vitality run high, or the sanguiferous system be overloaded, the loss of eight or twelve ounces of blood, either from the arm or by cupping, will be a proper commencement of the cure. This operation may be succeeded by emptying the intestinal canal, either by a dose of castor oil or jalap; while the irritation of the lungs will be greatly subdued by the following medicine: —

Take of precipitated sulphur of antimony, ten grains; extract of white poppies, twenty-five grains — Mix; and divide into ten pills, of which one may be taken three times a day, with three table-spoonsful of the following mixture :

Take of infusion of Buchu leaves, seven ounces; mucilage of gum arabic, one ounce; oxymel of hedge hyssop, one ounce — Mix.

The infusion of the Buchu leaves not only corrects the quality of secretion of the membrane but allays the irritation.

If, notwithstanding these remedies, the cough and irritation should continue to run high, inhaling the vapour of a strong decoction of hemlock will prove beneficial. The inhalation of the hydro-carbonic gas has long been greatly extolled as a remedy for this species of consumption; and in some instances I have lately witnessed its beneficial effects. This remedy is noticed in the 49th and 50th Numbers of the Monthly Gazette of Health.

When the system is free from fever, tar water may be taken with great advantage. If these remedies should fail sufficiently to correct the erysipelatus disposition of the habit, recourse may be had to mercury in the form of calomel, half a grain of which may be administered every night; and if the expectoration (as often happens during the time of recovery) should be difficult, a drachm of gum ammoniac may be added to the above mixture.

If pain of the chest or tightness of breathing come on, the Euphorbium plaster may be applied between the shoulders or over the breast-bone.

The observations made under the heads of Dress and Exercise, page 234, apply with equal propriety to this species.

Pulmonary Consumption of advanced Age.

This form of consumption is frequently the sequel of asthma, constitutional cough, and chronic difficulty of breathing. It is always slow in its progress; and, unlike the scrophulous species, it

frequently happens, that if the patient pass through the period of winter *, the spring suspends the complaint, and restores him nearly to a state of health, although attended with the most unfavourable symptoms. The cough depends on the state of the air, and is always accompanied with a proportionate expectoration of mucus, which is sometimes frothy, and easily brought up, and at other times is opake and tenacious, and requires great exertion to discharge it. There is very rarely any pain in the chest, and no hectic fever, till within a few days of death, when the mucus changes to a brown appearance, and emits a cadaverous odour. This disease, being the consequence of a previous affection of the lungs, is accompanied with much general debility. The skin is particularly pale and flaccid, and the extremities oedematous; and there often prevails, in a greater or less degree, symptoms of that affection termed pectoral angina. As the disease advances, the breathing often becomes so laborious, as to require aid of all the muscles of the chest to perform respiration; and the expectoration is also so difficult, as to be effected chiefly by the strong action of the diaphragm, exerted so as nearly to amount to vomiting. As the expectorating powers are diminished, the patient is distressingly oppressed by the collection of mucus in the bronchial ramifications. On opening the chest, the lungs in this disease but slightly collapse; and their external surface exhibits a bluish mottled appearance, bearing slight marks of oedema. The bronchial ramifications are loaded with mucus; and the capacity of the pulmonary veins I have always found more or less enlarged, and with branches greatly distended with blood. Beneath the pleura pulmonalis there is a collection of very small, hard, dark-coloured tubercles; and the nutrient vessels of the lungs much ossified.† There is also an effusion of serum in the cavity of the chest and pericardium.

* The cough, in consequence of its recurring in the winter-season, has been by some writers named the winter-cough: but as it also occurs during very hot weather, the name is improper.

† Ossification of the internal arteries of the chest is so common an occurrence in elderly people, that, in every subject I have opened above the age of fifty-five, this process had in some degree taken place. The most extraordinary case of extensive ossification of arteries I ever met with, or heard of, was that of the late General Bissett, of Great Pulteney-street. In the arterial system of this gentleman, there was scarcely an artery of any consequence that was not, more or less, ossified. Independently of those of the chest, the arteries of the extremities might be traced by the touch to their subdivisions, particularly those of the arms. In the last year of his life he suffered little from irritation in the lungs, and seemed gradually to sink from languid circulation, in consequence of the extensive ossification of arteries.

In the treatment of this disease, although it be not attended with increased vitality, yet it is often necessary to extract blood from a vein; for, in elderly people, the venous system is often so much overloaded, as materially to oppress the vital powers. Hence, though in such a situation the patient may appear much weakened, the loss of a small quantity of blood from a vein seems to take off a load from the springs of life, and to allow the action of the system to go on with fresh vigour. Thus an accession of strength is actually gained; and this advantage should be preserved, by joining with an expectorant medicine a proportion of iron, as in the following form: —

Take of the alkaline tincture of iron, one drachm; gum ammoniac emulsion, seven ounces; paregoric elixir, half an ounce. — Mix. Two large spoonfuls to be taken three times a day.

But should the patient be so much reduced, that the above tonic is not sufficiently powerful, the following mixture may be preferred: —

Take of infusion of rhatany root, six ounces; oxymel of squills, six drachms; muriated tincture of iron, half a drachm; paregoric elixir, six drachms. — Mix. To be taken in the same manner as the preceding.

These medicines will prove highly useful in promoting expectoration, and, at the same time, in counteracting debility; but should the expectoration be of a saltish taste, and show an over-saline state of the blood, the following mixture will succeed best: —

Take of Canada balsam, two drachms; mucilage of gum arabic, half an ounce; prepared ammonia, fifteen grains; paregoric elixir, six drachms; tincture of squills, three drachms; distilled water, eight ounces. — Mix. Two large table-spoonsful to be taken three times a day.

When the legs swell, blistering plasters may be applied to the extremities; but they should not be continued longer than six hours, and the part should afterwards be covered with the leaf of the cabbage, previously softened by steeping it in boiling water for about half a minute. The discharge of serum from the parts never fails to afford great relief. Blisters may here be objected to, because in a debilitated system, the inflammation may terminate in mortification; but I never knew an instance of it, when proper precautions were taken not to allow the blistering plaster to continue on the part longer than six hours.

The inhaling of the fume of stramonium is attended with no good effect in this disease. In cases of constitutional cough, be-

fore the system has given way, or symptoms of actual consumption appear, it is a valuable remedy. Laudanum is uniformly hurtful, by checking expectoration. The fox-glove, by diminishing the vital powers, is, in the advanced state of the disease, a dangerous remedy; having, in many instances, occasioned sudden death.

The diet should be light and nutritious; for at the period of life in which it occurs, the system is not so easily nourished as at an earlier age. When paucity of urine takes place, a beverage of weak gin and water will be the best.

Remarks. — By the preceding account of consumption it appears, (1) That the disease of the lungs, producing emaciation of body, or consumption, is of three kinds: one seated in the substance of the lungs, which is of a scrofulous nature; the other in the membrane lining the windpipe and its branches, which is of an erysipelatous nature; and the last arising from ossification of arteries, and morbid irritation of the membrane of the bronchial ramification, occurring in elderly subjects. (2) That the nutrient vessels of the lungs are small, and therefore do not possess the same power of removing diseased structure as other parts of the body. (3) That the chemical process going on in them of attracting vital air partly with carbon and hydrogene gas, and the dilatation and contraction during respiration, are very unfavourable for the process of healing; and, on these accounts, disease of the substance of the lungs, when advanced to suppuration, generally terminates fatally. (4) That it is in the early stage of the disease that remedies are likely to succeed in restoring the patient to health: that the most efficacious medicine is the oxymel of the hedge hyssop. (5) That the application of the Euphorbium plaster to the chest is necessary. (6) That the diet should consist of vegetables well boiled, with a small proportion of animal food under-done. (7) That all stimulants, or spices, should be avoided in the food. (8) That the exercise should be gentle, and flannel should be worn next the skin. (9) That in the erysipelatous species the treatment does not materially differ to that recommended for the scrofulous species, except the addition of balsam of copaivi or Canada, which corrects the secretion of the membrane of the windpipe and its branches. (10) That the treatment of the consumption of advanced age must be regulated by the state of the system. (11) That steel and other tonic medicines are necessary in this species, especially when great debility of body is indicated by swelling of the legs, &c.

At the Phthisical Dispensary, established in 1805, under the patronage of His Majesty, at 170. Piccadilly, the author attends every Wednesday and Friday, from 12 to 2 o'clock, to give his advice gratuitously, to consumptive patients, recommended by a house-keeper, as a proper object of charity.

OF CORNS.

Corns consist in a hard thickening of the skin, in consequence of pressure. They are probably formed in the following manner. The cuticle, first rendered thick by pressure, is by continuance of the cause forced into the true skin, and the thickening process being kept up, the accumulation increases, and is forced deeper into the skin. The surface, by the degree of pressure being increased, gradually extends, so that the substance termed "Corn," becomes of a conical form.

TREATMENT. — The callous substance, after having been immersed in warm water for about half an hour, should be nearly removed by a knife, and the remaining callous part rasped off by a fine file, and the part afterwards covered with the compound ammoniacal plaster spread on leather. But if this cannot be obtained, the Diachylon Plaster, No. 58, may be employed. The occasional cause should be avoided, by wearing easy shoes. When the corn is situated at the bottom of the foot, its recurrence may be prevented (after its removal as above directed), by the use of the horse-hair socks, the elasticity of which will obviate the effect of pressure on walking.

Plasters of verdigris and the red precipitate of mercury have been much recommended for the removal of corns, and for alleviating their pain. From their caustic property, they may have a good effect; but from this quality they may also irritate and aggravate the pain.

Diachylon plaster, spread on leather, (about the size of half-a-crown,) applied on the upper part of the foot, about an inch or half from the corn, is esteemed a sovereign remedy by Admiral Henry: who, having received essential benefit from it, has, from motives of humanity, requested its recommendation in this work.

In the Monthly Gazette of Health, a correspondent recommends a piece of raw beef of the size of a crown, to be applied over the corn, during the night, which in the course of one week, he states, will effect a cure. The corny substance should be removed by a knife or rasp as it becomes soft.

OF COSTIVENESS.

The common effects of costiveness are head-ache, giddiness, disagreeable taste in the mouth, a disrelish of food, and sometimes the piles.

CAUSES. — It is generally the consequence of a sedentary life, deficient secretion or inertness of the bile, the use of port wine, a redundancy of slime, acidity in the stomach or bowels, or a spasmotic constriction of the intestines.

TREATMENT.—The alterative doses of the aperient salts, No. 2, taken every morning in whey, will succeed in obviating costiveness much better than rhubarb, which, after its operation, is very apt to leave a disposition to the disease. When the intestines are overloaded with slime, which is generally the case, three or four grains of calomel may be taken every third night, for a fortnight; and three drachms of the Epsom salt, No. 2., the following mornings. In females of sluggish constitutions, costiveness is a common attendant on retention or suppression of the menses, when the ecphratic pill of the Edinburgh Pharmacopœia is the best remedy. (See **TREATMENT OF GREEN SICKNESS.**) In case of much pain in the bowels, the operation of these medicines should be promoted by the use of the Laxative Clyster, No. 97.

When costiveness is attended with acidity in the stomach, the prepared natron dissolved in water, and taken as directed, page 58, will prove an effectual remedy; and the use of the tincture of camomile and ginger, (see No. 7.) a vegetable diet and moderate exercise, will prevent its recurrence. Costiveness produced by the use of lead, to which painters are particularly subject, requires an active medicine, such as the Aperient Pills, No. 46, page 49. A stimulating clyster of aloes and salt is also necessary. (See **COLIC.**) When costiveness is accompanied with piles, the artificial Harrowgate salt, or the electuary for piles, No. 85., will answer best. Friction over the bowels every morning has often succeeded in keeping up a regular action of the intestines.

In scrofulous subjects, and young women about the age of fifteen, costiveness is often a forerunner of serious mischief, such as consumption of the lungs, green sickness, &c. People disposed to apoplexy are very subject to costiveness in consequence of slight compression of the brain from distention of blood-vessels; this state of bowels favouring plethora, should be in them particularly guarded against by taking occasionally three of the Aperient Pills, No. 46, page 49, which will not only empty the intestines, but also relieve the head, by producing a determination of blood to the bowels and extremities.

The cause of costiveness is often debility, or want of excitability in the lower portion of the intestinal canal, and sometimes an overloaded state of the lower intestines, especially the descending colon; in which cases the best remedy is a lavement of warm water, with one or two tea-spoonsful of common salt dissolved in it. By the use of this remedy once or twice a week, the bowels may be brought into a regular state, which will soon render its continuance unnecessary.

The Croton oil, in the dose of one to two drops, made into a

pill with castile soap, has been lately found very efficacious in cases of obstinate costiveness.—It is the most powerful purgative with which the profession is acquainted.

OF COUGH.

When a cough occurs in a scrofulous subject, or a person of consumptive habit, or born of consumptive parents, or at the consumptive period of life, it requires particular attention. A blister over the breast-bone, the loss of blood from the arm, the occasional use of the Aperient Mixture, No. 62, the Cough Mixture, No. 66, or the Lettuce Lozenge, a low diet, and the use of flannel next the skin, are all indispensably necessary to prevent organic mischief, or pulmonary consumption — a very common termination of neglected cough.

For the chronic or habitual cough to which many people are more or less subject every winter, attended with shortness of breath, wheezing, and an expectoration of viscid phlegm, without pains in the chest or fever, the oxymel of hedge hyssop, in the dose of a small dessert spoonful two or three times a day, is an excellent remedy. If this oxymel should prove too heavy for the stomach, the following pills may be substituted for it; —

Take of extract of hedge hyssop and squill pill, of each one drachm; divide into 24 pills, of which two or three may be taken twice a day.

The lettuce lozenge recommended by Dr. Duncan of Edinburgh, I have also found a very excellent medicine, in cases of recent or catarrhal cough. When cough is attended with swelling of the legs, paucity of urine, and great difficulty of breathing on lying down, three or four grains of the oxy-phosphate of steel, made into a pill with a little honey, should also be taken twice a day. See treatment of Sub-irritative Asthma, and Consumption of elderly people.

It is sometimes difficult to ascertain whether the loaded state of the lungs be the consequence of effusion of serum in the cellular substance of the lungs, or an over-distended state of the blood-vessels. If the patient be in a debilitated state, free from fever, of a pallid countenance, and the ankles swell in the evening, there can be no doubt but that the oppression of the chest arises from weakness or an effusion of serum, in which case the treatment recommended for the Consumption of advanced age, fol. 240, will be proper.

For the cough of infants, a gentle emetic of ipecacuan powder, administered every twenty-four hours, generally af-

fords very considerable relief, and will often speedily cure it. If attended with great difficulty of breathing, or pain on coughing, a blister, or Burgundy pitch-plaster, should also be applied between the shoulders, or over the breast-bone, and a tea-spoonful of a linctus of equal parts of almond oil and syrup of white poppies, with ten drops of ipecacuan wine given three or four times a day. The almond emulsion is a very pleasant and excellent drink for children affected with cough: it not only quiets the system, and allays irritation in the lungs, but is so nutritious, that if a child drink plentifully of it, it will require but little besides. See *Almond Emulsion*, page 88.

When cough is a symptom of pleurisy and inflammation of the lungs, it is attended with fever, and acute pains in the chest. See *Pleurisy and Inflammation of the Lungs*.

Cough is also symptomatic of dropsy of the chest, when it is attended with general debility of the system, often swelling of the legs, especially towards night, great difficulty of breathing, and a sense of suffocation in an horizontal position. See *Dropsy of the Chest*.

Cough being a symptom of such *opposite* affections of the lungs, the danger of a *general* remedy must appear obvious. Popular cough medicines being composed of paregoric elixir, tincture of tolu, gum benzoin, &c. sold under fictitious names, as the essence or balsam of horehound, coltsfoot, &c. are serious impositions on the public; their stimulating properties having, no doubt, often produced inflammation of tubercles, and thus occasioned fatal consumption. In simple catarrh they will produce pleurisy or inflammation of the lungs, which, by terminating in suppuration, may destroy the life of the patient; and even in *chronic* cough they are often hurtful, by checking expectoration.

Cough is not only the effect of obstructed perspiration, but proceeds from various other causes, particularly in children and elderly subjects, such as teething, bowel complaints, fever, effusion of serum, &c. &c. Recent cough is generally considered a very trifling affection, but every person acquainted with the delicate structure of the lungs must allow that great judgment is requisite to regulate its treatment. More people die in this country of cough than of any other disease, which in the commencement might have been readily cured by the most simple medicine. Spitting of blood and consumption of the lungs are generally the consequences of neglected or ill-treated cough. Scarcely any disorder alarms the mind of a medical man more than cough, when affected by it himself; and hence, by attending to it on its *first attack*, medical men very rarely die of diseased lungs.

General remarks.—Cough is a symptom of irritation either in the substance of the lungs, or the internal membrane of the windpipe and its branches. This irritation is of two kinds: one being attended with inflammatory action, in which case there is fever and pain on coughing, and seldom any expectoration. Here blisters, loss of blood, and the use of purgative and sudorific medicines, are necessary, with a low diet. The other is from an opposite state, viz. relaxation, in which case there is a considerable quantity of mucus poured out into the branches of the windpipe, and the cough is necessary to bring up the phlegm. This case is noticed under the head of Consumption of elderly People. Another kind is from effusion of serum in the chest, and particularly the substance of the lungs, which is noticed under the heads of SUB-IRRITATIVE ASTHMA and DROPSY OF THE CHEST. In these latter cases, opiate medicines, by checking expectoration, are dangerous remedies. In consequence of the tender structure of the lungs, and their great vascularity, cough should be regarded as a disease that should not be neglected.

OF COW-POX.

The matter for communicating this disease should be taken in an early state of the pustule, generally about the fourth or fifth day after the inoculation, by dividing the skin of the pustule with a lancet, and collecting thereon the *clear limpid* matter that exudes, with which the arm of the person to be infected should be so slightly scratched as not to draw blood. On the third or fourth day the part inoculated will appear a little red and prominent, which will keep increasing to about the ninth or tenth day, when the constitution will be infected, the signs of which are a slight fever, and a little enlargement of the glands in the pit of the inoculated arm. The part should be defended from the friction of the linen by applying a little gold-beater's skin; and if the surrounding inflammation should run high, the application of the lotion of Goulard's extracts, No. 30, will be proper.

From inattention to these particulars, it is probable that the reports of the small-pox succeeding cow-pox inoculation have arisen; for, unless the matter be *genuine*, and the *constitution be infected*, the person cannot be secured against the small-pox contagion. It may happen, that the inflammation excited by the inoculation with genuine cow-pox matter may remain local; *i. e.* the inflammation may go on so as to form a pustule, without any portion of the matter entering the system, when, of course, the subject must remain liable to small-pox infection. The same may occur from the small-pox matter, cases of which are by no means uncommon.

Cow-pox, like all other discoveries in medicine, has met with the opposition of those professional characters, who, from motives of lucre and jealousy, are capable of depreciating or misrepresenting discoveries of immense importance to their own species. The contest between its interested friends and enemies has been carried on with such heat and illiberality, that the assertions of either party are unworthy of notice. In consequence of the late recommendation of the cow-pox by the legislature, I resolved to embrace every opportunity to put it to the test of experience. For this purpose, I inoculated with small-pox matter about thirty children whom I had vaccinated within the last ten years, the whole of whom resisted it. The result of these and other experiments has induced me to recommend vaccination.

It has been said by the violent opponents of vaccination, that it is often succeeded by a cutaneous eruption resembling the itch; but the experience of disinterested practitioners has most satisfactorily proved the assertion to be false.

Several cases of small-pox subsequent to vaccination, have been published in the Monthly Gazette of Health, which prove that, on some peculiar constitutions, cow-pox does not produce a sufficient effect to secure the constitution against the influence of small-pox contagion; but even in them, the disease is remarkably mild; so that, if it should fail to operate as a preventive, it will certainly act as a powerful mitigator.

OF CRAMP, OR SPASM.

When cramp attacks the stomach, it is generally the effect of flatulence, and often precedes or attends a fit of the gout. When it is the effect of indigestion, it may be relieved by a small tea-spoonful of the Spirit of Sal Volatile, No. 13, in half a wine-glassful of water, to which a tea-spoonful of ether may be added if the patient be of a gouty habit, or the spasm be obstinate. The Gout Mixture, No. 69, or Tincture of Ginger and Camomile, No. 7, may afterwards be employed with great advantage to prevent a recurrence, and should be persisted in as long as the patient is troubled with any symptom of indigestion. The Jamaica ginger powder generally succeeds in gouty cases, better than any other stimulant. (See GOUT AND INDIGESTION.) If the spasm be so violent as to resist the use of æther and sal volatile, from twenty to thirty drops of liquid laudanum may be added. A draught of warm water often affords immediate relief, particularly when the spasm precedes or occurs at the period of menstruation.

People subject to cramp in the stomach should wear flannel next the skin, and avoid fermented liquors and green vegetables, particularly for supper. (See INDIGESTION and SASSAFRAS NUT, p. 94.)

Cramp in the lower extremities is a very common attendant on the latter stage of pregnancy, in consequence of the pressure of the womb on the nerves leading to them, and particularly during labour, from the pressure of the head of the child. In either of these cases, it may be relieved by compressing the part affected with the hand, and sometimes by change of position, and by rubbing the part with dry flannel, or a flesh-brush. In obstinate cases, the application of æther and laudanum over the part affected has been found beneficial. When it occurs during pregnancy, the internal use of laudanum and æther, as directed, Nos. 31 and 14, will be proper. In this case, particularly, the patient should avoid costiveness, by taking occasionally a little lenitive electuary, and should observe, as much as possible, a horizontal position. Cramp of the extremities may sometimes be speedily relieved by putting the *opposite* muscles into action; thus, when the muscles of the calf are affected, by putting those on the front into action, which is done by drawing up the foot, the cramp will often instantaneously go off.

For the cure of cramp, a variety of whimsical remedies are in great repute among the lower order of people, which being in themselves perfectly inefficacious, must depend on the imagination for success. Whatever affects the mind with surprise or horror, as the cracking of a roll of brimstone held in a warm hand, the wearing of rings formed of the nails or furniture of old coffins, and such like fanciful conceits, have certainly a wonderful effect on all spasmodic diseases.

OF CROUP.

This disease consists in a violent inflammation of the membrane lining the windpipe: it is principally incident to children, and rarely occurs till after weaning. It is most prevalent in low marshy countries, on the sea-coast, and in wet and cold seasons. It seems to be peculiar to some families, and, after one attack, the patient is very liable to a return on the slightest exposure to cold.

SYMPTOMS.—It commences with an obtuse pain about the upper part of the windpipe, which is increased on being pressed. The respiration is difficult, attended with wheezing, and a *peculiar* ringing or stridulous cough, resembling the crowing of a *young cock*, and a trifling expectoration of mucous matter. The face is somewhat livid, and often much flushed, and the swallowing

little affected; there is also some degree of frequency and hardness of the pulse, great thirst, restlessness, and feverish heat. The wheezing and difficulty of breathing are increased by coagulated lymph, or sloughing of the membranous lining of the windpipe, which sometimes stops up the passage, so as to produce sudden death.

CAUSES.—It is occasioned by the application of cold combined with a moist atmosphere, particularly in the spring and winter seasons.

TREATMENT.—On account of the situation and acute nature of this disease, *immediate* and *active* remedies are requisite to save the life of the patient; the chief of which are bleeding and blistering. On the *first* attack of the disease eight or twelve leeches should be applied over the windpipe, and a blister to the nape of the neck, and also *over the windpipe*, as soon as the bleeding from the orifices made by the leeches will admit of it. If the pulse be strong, or the fever run high, the loss of blood from the arm will likewise be necessary. A dose of Emetic Tartar, No. 35, should also be exhibited without delay; and if it should not operate on the bowels, a dose of the Basilic Powder, No. 36, or Jalap and Calomel, No. 27, may be given an hour after the operation of the emetic. If the skin should continue *dry* and *hot*, from ten to fifteen drops of the antimonial wine may be administered every three or four hours, with the Saline Mixture, No. 78; and in case they should fail of producing perspiration, the warm bath should be employed. The tincture of foxglove, in the dose of six or eight drops twice or thrice a day, has in some instances been found beneficial. The discharge of the blisters should be kept up, by dressing them with the weak mercurial ointment. This application, after the removal of the dead skin of the blister, has in so many instances produced such immediate relief, that I have been disposed to attribute the recovery of the children principally to it. The acetated ceruse, as directed for hooping-cough, is also a very valuable medicine in this disease. If the system be in a plethoric state, which is generally the case, the loss of blood from the arm, or by cupping, will be necessary, provided the bleeding by leeches has not sufficiently unloaded the system of blood-vessels.

In a late number of the *Monthly Gazette of Health*, a practitioner in Yorkshire recommends an abstraction of blood from a vein till the patient faints. When the patient recovers from the swooning fit, he is sometimes free from the disease. Since he adopted this practice, he states, he has not lost one patient by the disease. If the remedies above recommended should fail, the Prussic acid, in the dose of one to two drops three or four times a day, may be administered.

The patient may be supported with fresh milk, mixed with almond emulsion, or linseed tea, of which, in consequence of its thirst, it will take a sufficient quantity to support it. After the termination of the disease, the decoction of bark with liquorice will be necessary to prevent a relapse. Change of situation to a more light and dry air will also be advisable.

This disease sometimes attacks adults ; when the same remedies, to a greater extent, are necessary.

DISTINCTION.—Croup may be distinguished from inflammation of the throat, by the *peculiar shrill ringing sound* of the voice, and by the breathing being attended with a wheezing noise. The swallowing is also in general perfectly free, whereas in inflammation of the throat, it is difficult.

Two species of croup are noticed by medical writers ; the one depending on *inflammation* of the inner coat of the windpipe, termed inflammatory croup, which is described above ; the other from *spasms*, unattended with inflammation, termed *spasmodic croup* ; — the latter species is of the nature of asthma, and comes on in the night-time. It often intermits, and, in the intervals, both the respiration and cough, if any exist, are free from the *characteristic* sound of the inflammatory croup. In the early stage of this disease, medicine has, in general, a very salutary effect ; but, if it be suffered to continue long, it will prove very difficult to relieve or cure. The most efficacious remedies in this species are emetics of ipecacuan powder repeated every day, and the anti-spasmodic medicines recommended for asthma, which should be persevered in till the *croaking noise* has *entirely* left the patient. (See ASTHMA.)

OF CUTS.

The edges of an incised wound, termed a cut, if free from any foreign matter, should be brought into contact as soon as possible, and kept so by means of long strips of the diachylon plaster, spread on linen or leather, over which a dressing of brown cerate and a bandage should be applied. These dressings should not be removed for at least three days, when a repetition of them will, in a few days more, effect a cure. If much inflammation or pain should come on, the use of the Discutient Lotion, No. 102, and the Aperient Mixture, No. 62, will be necessary. The traumatic balsam, commonly called Friar's Balsam, generally resorted to in cases of recent wounds, is a very improper application, the stimulating resinous gums of which it is composed being separated on mixing with the blood, occasioning ulceration by preventing the union of the sides of the wound. Such stimulants should therefore never be employed, however

trifling the accident may be, as their irritating quality may be productive of considerable mischief, particularly in an inflammatory or irritable habit.

In very superficial cuts it is a common practice to apply the court plaster, which, by keeping the edges together, and defending them from the air, often succeeds: in all cases, however, the gold-beater's skin, or the diachylon plaster, spread on black silk or leather, will answer best.

For the means of stopping the flow of blood from a divided artery, see page 116.

OF DEAFNESS.

The causes of deafness are numerous. It is often produced by an accumulation of the secretion of the ear, termed wax; in which case, the ear should be syringed every morning with warm soap and water, till the hardened wax be entirely removed, and a little wool or cotton moistened with a few drops of the following mixture, introduced after each time of syringing, and continued for some weeks afterwards, to prevent a recurrence of the accumulation of wax:

Take of camphorated olive oil, half an ounce; oil of tartar, thirty drops. — Mix well together, by shaking them in a vial.

When deafness arises from palsy of the auditory nerve, electric sparks to the ears, a blister behind them, and the use of the Asarabacca Snuff, page 90, are the most powerful remedies. It will also be proper to improve the general health of the system, by the use of medicines calculated to promote digestion, and give energy to the nervous system, as the following mixture:

Take of the infusion of rhatany root, six ounces; volatile tincture of valerian, half an ounce; compound spirit of lavender, three drachms. — Mix.

Of which, three table-spoonsful may be taken three times a day. Washing the head with warm water every morning will also prove very beneficial, and for this purpose, the head should be shaved. A flannel cap should be worn during the night, and a wig lined with flannel in the day-time.

When deafness is attended with ulceration of the internal part of the ear, which is known by a discharge of matter, the ulcer should be healed as soon as possible, by syringing the ear every morning and evening with the following lotion made a little warm:

Take of Egyptian honey, two drachms; rose water, eight ounces. — Mix.

This diseased state of the ear, in which the drum of the ear (*membrana tympani*) is more or less injured, frequently follows the scarlet fever, and is generally incurable, in consequence of a portion of the membrane being destroyed, or the surrounding bone of the skull being carious. When deafness is occasioned by obstruction in the *Eustachian tube*, preventing the passage of air into the internal ear, the tube should be syringed with warm soap and water. When the cavity of this tube is obliterated by disease, which is not an unfrequent cause of deafness, it has been proposed to admit air into the internal cavity, by puncturing the *membrana tympani*, which has, in some instances, succeeded. This operation is very simple, and attended with no pain.

A temporary deafness is often produced by slight cold, particularly in children, which generally gives way in a day or two to the use of a little aperient and sudorific medicine, and a flannel nightcap.

Deafness is frequently the consequence of a deficiency of the secretion of wax; when the following liniment will prove beneficial:

Take of oil of turpentine, two drachms; oil of almonds, six drachms. — Mix. Two or three drops to be dropped into the ear, or applied by means of a little lamb's wool.

In the first number of the *Monthly Gazette of Health*, the Cajeput Oil is much recommended for deafness. It is also much extolled in the foreign journals, as a remedy for this disease. It is directed to be applied within the external ear by means of fine wool, and the part behind the ear to be well rubbed with the Cajeput Liniment, No. 5.

It is scarcely necessary to observe, that the ear is a complex organ, and when affected with disease, requires very delicate management. Deafness arising from a variety of causes, it must appear to the most ignorant, that the stimulating medicines of quacks, so industriously advertised as a general remedy, cannot be applicable to every case.

In the 50th number of the *Monthly Gazette of Health* some cases of deafness, occasioned by thickening of the external covering of the drum, appear, which were cured by Mr. Earle, of London, by injecting a solution of the nitrate of silver. Mr. Wright, a scientific surgeon-aurist of London, in a late publication on the causes of deafness, attributes its frequency of

late years to the baneful influence of mercury on the auditory nerves. — This gentleman has also lately published a valuable treatise on nervous deafness.

OF DIABETES.

This disease consists in an increased discharge of urine, equal to, and sometimes exceeding in weight, the quantity of aliment taken by the patient, both liquid and solid. *

SYMPTOMS. — The first symptoms of this disease are, dryness of the skin, an increased discharge of urine, and great thirst. The urine, on becoming excessive, contains a sugary matter, and often emits an odour resembling that of violets. The stomach is sooner or later disordered, and thirst and voraciousness of appetite succeed, which will often scarcely admit of being satisfied: with these symptoms, there is generally a slight degree of fever present; and, as the disease advances, the emaciation and debility of the body gradually increase, attended more or less with sub-irritative fever.

CAUSES. — Some late writers attribute this disease to a morbid secretion of the gastric juice, the direct effects of which they suppose to be the formation of saccharine matter, with a certain defect of assimilation, preventing the healthy secretion of urine, and exciting the immediate separation of the imperfectly formed chyle by the kidneys. † But, as the stomach is seldom deranged till the diseased secretion of the urine has existed some time, it is more probable that the affection of the stomach is the effect and not the cause of the disorder; besides, if an increased action of the digestive organs were the cause, one would expect, when the stomach, with the whole system, is debilitated, the quantity of urine would be diminished; but so far from this being the case, the quantity of urine increases with the debility of the body. This disease probably arises from a morbid condition of the skin, in consequence of which sensible perspiration is checked, and the increased secretion of the kidneys is an effort of nature to carry off an excess of

* In consequence of the urine having been found to exceed the quantity of food and liquids taken by the patient, some medical men have been led to suppose that the skin, instead of perspiring, absorbs humidity from the air. It is, I think, much more probable that the water is formed in the lungs by the union of inflammable and vital gas (the constituent parts of water).

† Dr. Trotter observes, that the majority of persons he has known afflicted with this disease, were lovers of the bottle. "I suspect," says he, "that many drunkards have this complaint, without taking notice of it, and that it comes and goes without creating alarm, just as they happen to live regularly or otherwise."

the watery part of the blood. The skin becoming dry, absorbs moisture from the atmosphere, and increased action of the kidneys produces, sooner or later, disease in their structure. The urine is thereby altered in its quality, yielding a violet odour, and, on evaporation, a saccharine matter. It may also be the consequence of the lungs not properly performing their office in conveying hydrogene gas and carbon from the body, the consequence of which may be the production of water.

TREATMENT. — Dr. Rollo, supposing the sugar with which the urine abounds, to be vegetable matter, proposes to cure this disease by confining the patient to a diet of animal food.* This plan has not succeeded in the practice of others, who have found, notwithstanding a strict adherence to animal food, that no alteration was produced either in the *quantity* or *quality* of the urine.

Dr. Gilby, physician to the General Hospital, near Birmingham, has published several cases of diabetes which were cured by the nitric acid, in the following proportion :

Take of nitric acid, a drachm and a half; barley-water, half a pint; simple syrup, two ounces.—Mix. Four large table-spoonsful to be taken, with the same quantity of water, three times a day.

Mr. Chavasse, surgeon, of Walsal, states that he has found this medicine to answer in one bad case of the disease.

Dr. Dobson, of Liverpool, who has paid particular attention to this complaint, recommends the use of strengthening medicines, as the Peruvian bark; and Dr. Schutz much extols lime-water as a remedy.

The hepatised ammonia, with an abstinence from vegetable food, it is said, has succeeded in a few cases of diabetes. The small dose of five drops of this medicine should be begun with, and repeated three or four times a day, in a little cold water, and increased two drops in each dose every day till it produce some degree of nausea, or slight giddiness. This medicine should always be dropt at the time of taking it, as, by being mixed up in draughts, or any other form, its medicinal properties are destroyed by decomposition. A draught composed of fifteen drops of laudanum, twenty-five drops of antimonial wine, and a little mint-water, is also recommended to be taken every night during its use. The bowels should be

* Had Dr. Rollo properly examined the sugary matter, he would have found that it does not possess any *vegetable* property, except that of being sweet to the taste. Like other animal productions, it putrifies and yields ammonia.

kept open by the occasional use of the Aperient Pills, No. 46. This mode of treatment is directed to be pursued till the morbid condition of the stomach be removed; the marks of which are, a diminished secretion and *high coloured turbid* state of the urine, accompanied with a *loss* of appetite and *loathing* of food. At this time the tongue and gums lose their florid red colour, and become pale. When these effects are produced, exercise is to be taken; and a *gradual* return to the use of bread and vegetables, such as brocoli, spinach, pease, cauliflowers, cabbage, lettuce, and parsnips, in moderate quantities, is to be allowed. — The drink should consist of water, with a very small proportion of brandy.

Dr. Ferrear has published three cases, in which he succeeded by giving the Peruvian bark with the leaves of the bear's whortleberry and opium, in the following proportion:

Take of yellow bark, in powder, bear's whortleberry, in powder, of each one scruple; opium, dried and powdered, half a grain. — Mix. To be taken four times a day, in a glass of lime-water.

Lime-water is likewise recommended, by this author, for the common beverage.

The rhatany root I have found to succeed in this disease much better than the Peruvian bark. (See *Rhatany Root*, page 89.)

For the purpose of producing a determination of blood to the skin, and exciting perspiration, which are of the first importance in the treatment of this malady, the warm bath to the degree of 102 or 104 should be used every day, and a flannel waistcoat worn next the skin. The diet should principally consist of animal food; and the common beverage, of three parts of distilled water and one of alum-whey.*

Abstraction of blood to the extent of twelve ounces, about two or three times a week, according to its debilitating effects on the patient, has been lately much recommended as a certain remedy for diabetes; and several cases, in which it fully succeeded, have been published. Some practitioners object to this treatment in consequence of the emaciated state of the system; but as plenitude of the blood-vessels is often attendant on emaciation, the practice cannot be objected to on that account. In the 8th No. of the Monthly Gazette of Health some cases of diabetes are published, illustrative of the good and bad effects of this remedy. In some subsequent numbers, large doses of laudanum are recommended under the sanction of Dr. Baillie, and

* This whey is made by boiling a drachm of alum in a pint of milk.

in one case which had resisted the most approved modes of treatment, I found it to succeed. Dr. Baillie commences with twenty drops, twice a day, which he directs to be increased two drops, every other day, till it arrives at 60. The Prussic Acid in the dose of two drops, two or three times a day, in a decoction of rhatany root, is also highly recommended.

Dr. Dods, of Worcester, and other experienced physicians, have lately administered pure magnesia in the dose of fifteen grains, twice a day, with the most decided advantage in several bad cases of this disease. In the 89th No. of the Gazette of Health, some cases of diabetes are given which were cured by diaphoretic medicines, with an animal diet.

An increased secretion of urine is a frequent attendant on the hysterical affection and gout, in which cases it is free from saccharine matter, and being a symptomatic affection, will, of course, cease with the primary disease.

Recapitulation. — Diabetes, being dependent on a morbid condition of the skin, the object of practice is to promote determination of blood to the surface, by means of the warm bath and sudorific medicines. Bleeding in a plethoric habit is also a powerful remedy in exciting this secretion. With this treatment such other remedies and diet may be employed as the state of the general health may point out.

OF DIARRHEA OR LOOSENESS.

This disease consists in frequent and copious evacuations of liquid stools, in consequence of morbid irritation of the intestines, occasioned either by acidity, putrescence of aliment, the undue use of purgative medicines, obstructed perspiration, &c. When the stools appear *white* like cream, the disease is called *Celiac Passion*; and when the food comes away in an undigested state, it is termed *Lientery*.

TREATMENT. — Before we adopt any decisive mode of treatment in this disease, we should be well satisfied whether it arises from *inflammatory* excitement, or from relaxation and debility; as in the former case it is an operation of Nature, to unload the system, in which it is the duty of the practitioner to assist her by gentle aperients, and in plethoric habits by an extraction of blood. When the strength of the constitution is not materially reduced by the evacuations, it may be considered as salutary; in which case, by avoiding much vegetable food and acids, and taking broth thickened with arrow-root or rice, it will gradually cease.

If the debilitating effects should indicate the necessity of checking the evacuation, it will be most prudent to administer a

gentle emetic of Ipecacuan Powder, No 23, and afterwards fifteen grains of Rhubarb Powder, No. 26, in a little simple cinnamon-water, with the view of removing any irritating matter from the stomach and intestines, prior to the use of an astringent medicine. The cure may be then completed by the Cretaceous Mixture, No. 64, and the occasional employment of the Clyster, No. 96. If the skin be dry and hot, two grains of Ipecacuan Powder, No 23, with five drops of Laudanum, No. 31, should be taken at bed-time, in a little simple peppermint-water. If these fail to produce perspiration, the warm bath to about 100 degrees will be proper. After the complaint is effectually checked, the decoction of the Iceland liverwort should be taken, as directed page 75, or two tea-spoonsful of the tincture of rhatany root or of *Angustura* bark, three times a day, in a little water, for the purpose of strengthening the stomach and intestines.

The combination of animal and vegetable jellies, recommended under the head of *Arrow Root*, page 93, affords the best diet.

Mulled wine, so frequently given in these affections of the bowels by becoming acid, often aggravates the purging and produces griping pains. People subject to this complaint should wear flannel next the skin.

Such as indulge in the too free use of the bottle are very liable to purgings from morbid irritability of the intestines, or vitiated secretion from organic mischief: in such case, after the operation of an emetic of ipecacuan powder, and a gentle dose of rhubarb powder and magnesia, the following medicines may be given with great advantage: —

Take of alkaliſed mercury, half a drachm: opiate confection, one drachm. — Mix; and divide into eighteen pills, of which three may be taken every night:

and a wine-glassful of the following mixture three times a day:

Take of decoction of Iceland liverwort (page 75), lime-water, of each six ounces; compound tincture of rhatany root, one ounce. — Mix.

The salutary effects of this treatment will be of short duration, unless the patient observe a regular mode of living.

Alumine, in the dose of five or eight grains with a little gum-arabic, two or three times a day, has been found very beneficial in cases of chronic looseness. This article is precipitated from a solution of common alum by pure potass.

People predisposed to pulmonary consumption are very subject to diarrhœa, and in them it generally proves very obstinate; and, when imprudently checked by astringent medicines, is generally succeeded by cough, and other symptoms of incipient consumption. In such patients, instead of restraining it, we should moderate it by the mixture recommended under the head of lime-water (see *Lime-water*); and as it abates, we should also attend to the state of the lungs.

We should likewise carefully observe the effects of diarrhœa on the system when attendant on fever. When fever prevails, looseness should be considered an effort of nature to unload the system; and in such case, when checked, it is generally succeeded by some local mischief, as inflammation of the brain, lungs, or bowels. Under the head of Cretaceous Powder, I have made some observations on the critical purgings of fever.

People subject to irritation in the bowels on change of weather, passions of the mind, or on any slight deviation from an accustomed mode of living, should wear flannel next the skin.

DISTINCTION. — This disease is distinguished from *dysentery* by the *absence* of fever; by the discharge of *fæces*, which in dysentery is rare, and only in a hardened form; and also the want of that *foetor* in the discharge which attends dysentery, and marks it a contagious malady; and aggravated diarrhœa will hence very often much resemble dysentery, and also be attended with slime and blood.

When a patient complains of diarrhœa or looseness, the practitioner should not only enquire as to the quantity of the *fæces*, but the nature of the discharge. When the evacuations are occasioned by irritation of the rectum, the quantity is often very small; and in such case, instead of administering an astringent, an aperient medicine may be necessary, the motions, although frequent or numerous, not amounting to a proper quantity in twenty-four hours. If, instead of *fæces*, slime only should be evacuated without gripping pains, the disease is *tenesmus*. See *Tenesmus*.

For the *Purgings of Children*, see pages 139. and 148.

Remarks. — The irritation of intestines in this disease is of three kinds, viz. inflammatory action, debility, and organic mischief, or ulceration in the intestines. The first occurs in plethoric constitutions, the second in debilitated systems, and the last in elderly subjects. In the first instance, it should not be checked, but means employed to reduce the system by bleeding — (if acute pain and rigors and fever come on, we may conclude inflammation has taken place, in which case the treatment recommended for inflammation of intestines should be adopted). In the second case, after removing offending matter from the intestinal canal, astringents should be employed; and, in the last case, the mixture of lime-water, &c. is the best remedy, by quieting the local disease.

OF DROPSY.

This disease consists in an effusion of the serum of the blood, in different parts of the body, in consequence of general or local weakness, or a mechanical obstruction. Collections of serum are often the consequence of an increased effusion from the exhalent vessels, or diminished action of the absorbents. Local dropsy is frequently occasioned by an enlargement or induration of some organ mechanically interrupting the free return of blood to the heart: thus an impregnated womb, by compressing the large veins that convey the blood from the lower extremities, is a frequent cause of dropsical swellings of the legs. Induration or enlargement of the liver * will, in the same manner, produce dropsy of the belly; and a polypus in the right ventricle, or ossification of the valves of the heart will produce an effusion of serum in the chest.

Effusion of serum is also not unfrequently the consequence of increased arterial action, attended with a state of the system of blood-vessels the reverse of that generally termed the *dropsical habit*, in which an opposite mode of treatment is necessary.

Some authors supposing that the *science* of medicine consists in the multiplication of technical terms, enumerate many species of dropsy, according to the situation of the body in which the effusion occurs. When it takes place in the cellular membrane, immediately beneath the skin, it is termed *Anasarca*; when in the cavity of the belly, *Ascites*; and in the chest, *Hydrothorax*: but the whole of such collections fall under the general denomination of dropsy, and when produced by debility, require the same method of treatment. The symptoms of *anasarca* are, an uniform pale, and often shining distension of the skin, generally of the legs, at first soft, and readily receiving the pressure of the finger. The swelling, during an horizontal position for some hours, is much diminished, and the face becomes puffed. It gradually extends itself upwards, till it occupies the thigh and trunk of the body, and sometimes even the head, attended with scarcity of urine, which is always high coloured. When it occupies the belly, the enlargement begins at the bottom, and gradually increases upwards, attended with a sense of weight and an evident sense of fluctuation on a sudden motion of the body. As the enlargement increases, the breathing becomes difficult, and the cellular substance of the legs distended. When the effusion is in the cavity

* This diseased state of the liver is generally the effect of the abuse of spirituous and vinous liquors. Dropsy thus produced is commonly the harbinger of death.

of the chest, there is always, more or less, a sense of anxiety about the heart, a difficulty of breathing, which is increased by lying down, a dry cough, palpitation of the heart, paleness of the face ; and when far advanced, the legs swell, and a fluctuation is perceived by the patient on any sudden shake of the body.

TREATMENT.—The removal of the collected water and restoration of the tone of the system, are the only objects to accomplish in the cure of this disease when the cause is merely weakness. The first should always be attempted by internal medicines, in preference to surgical operation or blistering. For this purpose the bowels should be emptied by a full dose of the Basilic Powder, No. 36, and the following day the Diuretic Pills, No. 80, page 66, with a wine-glassful of the following mixture, three times a day :

Take of infusion of buchu leaves, eight ounces ; compound tincture of bark, one ounce ; tincture of gentian, three drachms. — Mix.

The basilic powder should be repeated about twice a week, if the bowels should not be sufficiently relieved every day. A table-spoonful of steel wine may likewise be taken two or three times a day.

The Emetic Powder, No. 88, may also be given two or three times a week. An emetic not only increases the action of the absorbent vessels, but is a powerful remedy in the removal of visceral obstructions. A speedy absorption of the water of drop-sical swellings is often produced by spontaneous vomiting.

When the legs are affected, they should be well rubbed with a flesh-brush, or camphorated oil ; electric sparks, by stimulating the absorbent vessels, have also proved beneficial. If the legs only are affected, flannel rollers regularly applied from the toes to the knees, will prove very beneficial ; but when the thighs and belly are enlarged, no real advantage will be derived from them.

If the collection of watery fluid should not be evidently diminished by this treatment in the course of three weeks, if the fluid be seated in the cavity of the belly, it should be drawn off by an expert surgeon ; and if the extremities be the seat of it, small blisters, or scarifications *, may be employed, at the same time continuing the use of the tonic mixture.

From the supposition, that the condition of the skin of a drop-sical patient is changed from a perspiring to an imbibing state, it has been proposed to besmear the surface of the body with oil. The great accumulation of water during the intervals of tapping,

* These means should not be employed without the sanction of an experienced practitioner.

which has in many instances been found considerably to exceed in weight the quantity both of solid food and liquids taken in the time, may be the effect of the union of the inflammable and vital air; with the former of which dropsical patients are much troubled. (See FLATULENCE, and DIABETES.)

In advanced cases of general dropsy, the author has found the inhalation of vital air, with the internal use of steel and rhatany, to prove completely successful in restoring the patients to health. To produce any salutary effect in this disease by the vital air, the patient should at least inhale four gallons daily. In the fourteenth number of the Monthly Gazette of Health, directions are given for making this air, by a simple apparatus.

The diet should consist chiefly of animal food, either roasted or stewed down into soup or rich broth; and the beverage, good Port wine, or the Holland spirit of juniper (commonly called gin), which, mixed with the imperial drink, noticed under the head of Cream of Tartar, page 55, will promote the operation of the medicines, by increasing the secretion of urine. The common practice of confining dropsical patients to a limited use of liquids, has never, I believe, been attended with any advantage. Dr. Cullen observes, that he has seen it carried to great length without any manifest benefit to the patient, while on the contrary (observes this esteemed author), the practice of giving drink very largely has been found not only safe, but very often effectual in curing the disease. The ingenious and learned Dr. Millman recommends large quantities of watery liquids for the cure of dropsy. Not only from the instances he mentions from his own practice, and from that of several eminent physicians in other parts of Europe, but also in many instances in the records of physic, of the good effects of drinking large quantities of mineral waters in the cure of dropsy, I can have no doubt of the practice being very often extremely beneficial, by promoting the operation of diuretic medicines.

Exercise is often highly useful in dropsy: any mode may be employed that the patient can most conveniently take, such as walking, riding either on a horse or in a carriage, or swinging. It should always be as much as he can easily bear. By exercise alone, I am persuaded, employed early in the disease, Anasarca, or dropsy of the lower extremities, may often be cured.

Dropsical swellings of the legs, attendant on pregnancy, may be relieved by flannel rollers, friction, and supporting the legs on a sofa or stool, and by keeping the bowels regularly open, by gentle doses of rhubarb, or lenitive electuary.

When the effusion of serum is evidently the effect of increased arterial action, a species which frequently follows scarlet fever, abstraction of blood and the tincture of foxglove, in the dose of

fifteen to thirty drops two or three times a day, will be proper. The bowels should be occasionally well emptied by a dose of the basilic powder. In this case a low diet will be necessary. When the arterial action is sufficiently reduced, the cure may be completed by the infusion of Peruvian bark, with thirty drops of the sweet spirit of nitre in each dose.

DISTINCTION.—Dropsy of the belly may be distinguished from pregnancy, by being a regular enlargement of the belly, whereas that of pregnancy is generally evident on one side. The motion of the child is, after the fifth month, perceptible, on placing the hand on the bowels. In pregnancy, the breasts are also enlarged, and often painful. Dropsical females seldom experience an interruption in the menstrual evacuation, unless the powers of the system be much reduced. Dropsy of an ovary is not so easily distinguished from pregnancy. By its progress, the state of menstruation, and general health of the patient, a medical man may be enabled to distinguish it from pregnancy.

Remarks.—By the foregoing account of Dropsy it appears that its causes are not only numerous, but that it is the consequence of opposite affections, and requires opposite modes of treatment; that the accumulation of serum is sometimes the consequence of general relaxation and debility, sometimes of the mechanical operation of an enlarged and indurated organ, and sometimes of increased action of arteries, or over-distension of the system of blood-vessels; and being influenced by such a variety of untoward circumstances, it is impossible to lay down general rules for its treatment. When it is attended with a diseased liver, mercury should accompany the use of tonic medicines, as directed under the head of Calomel: when the cause is doubtful, and when the patient is advanced in life, we should have in view the improvement of the general health (as directed under the head of INDIGESTION); to promote the secretion of urine, as suggested under the head of *Squill Pill*; and to support the parts most affected by friction, and the gentle pressure of a roller: and when the consequence of increased action of the arterial system, or overloaded state of the veins, abstraction of blood will be proper.

OF DYSENTERY.

This disease generally occurs in summer and autumn, about the time autumnal intermittent and remittent fevers appear, with which it is often complicated. When attended with a discharge of blood, it is vulgarly termed the *bloody flux*. It is probably a specific inflammation of the internal membrane investing the intestines, particularly of the colon and rectum, occasioning a considerable morbid secretion of mucus.

SYMPTOMS.—This disease consists in frequent evacuations of

slime or mucus from the intestines, often mixed with blood, and when attended with the natural fæces, they are generally in a compact and hardened form. The motions are generally small, accompanied with very severe griping, and followed by a bearing down and considerable irritation of the anus. With these symptoms there are a loss of appetite, sickness, and sometimes vomiting, and the patient sooner or later becomes affected with a fever, which is sometimes inflammatory, and very often of a putrid kind. This disease is more frequent in warm than in cold climates; and, from its infectious nature, is often epidemic in camps and other places.

CAUSES.—Putrid air and aliment, fruit, and the too frequent use of fermented liquors and strong cathartic medicines, and whatever is capable of increasing the irritation of the intestines, are the causes of this disease.

From the dissection of patients who have died of this disorder, the internal coats of the colon and rectum have been found affected with inflammation and its consequences, viz. ulceration, gangrene, contractions, and thickenings.

TREATMENT.—In the cure of dysentery, the first objects are to empty the stomach by an emetic of twenty grains of ipecacuan powder, and the intestines by the Epsom salt, in the dose of half an ounce, dissolved in a little peppermint-water. After these medicines have duly performed their office, in order to allay the increased irritation of the intestines, and to produce a determination of perspirable matter to the skin, two grains of ipecacuan powder, with ten drops of laudanum, may be given every three hours. A lavement made of starch, administered twice or thrice a day, will also prove serviceable, by sheathing the inner surface of the large intestine; and also as a fomentation.

When the pulse is full, hard, and strong, or when the system is in a plethoric state, the loss of blood from the arm may be necessary; but when it is in the first instance not attended with fulness of habit, or inflammatory action, or when the constitution is much reduced by it, it will not be proper. If the pain in the bowels be violent, a warm bath and a large blister to the abdomen will be necessary. The diet should chiefly consist of vegetable jellies, as arrow-root, sago, tapioca, &c. &c.

When the violence of the first symptoms has abated, and the system is in a quiet state, the following powder, taken three times a day in a tea-cupful of the decoction of the Iceland liverwort, will complete the cure:

Take of ipecacuan powder, one grain; rhubarb powder, four grains; cinnamon ditto, four grains.—Mix.

If, after one or two days' trial of this medicine, the symptoms

should not considerably give way, eight grains of the compound cretaceous powder, and five drops of laudanum, may be substituted for the rhubarb-powder.

Several astringent and bitter medicines are recommended in this period of the disease, such as the *Simarouba bark*, *Columbo root*, *Cascarilla*, and *Peruvian bark*; but I have found none of them to answer so well as the Iceland moss. Dr. Cheston, of Gloucester, has noticed a very obstinate case of dysentery, which resisted all other remedies, that was effectually cured by a decoction of this herb.

If the disease should not give way to the above treatment, some visceral obstructions or ulceration of the intestinal tube may be suspected; in either case, five grains of alkalis'd mercury, with five drops of laudanum, in a tea-cupful of the Iceland moss decoction, twice a day, generally prove very beneficial. The application of the *Euphorbium*, or Burgundy Pitch plaster, over the bowels will also be proper, and may prevent serious mischief. The patient should avoid the use of acids, and vinous or spirituous liquors.

Opium should not be employed in this disease until a free evacuation of the bowels has been procured by aperient and emetic medicines, as it generally increases the inflammatory state of the system; if, however, the patient suffer by acute pain in the bowels, it cannot be entirely dispensed with. Five or six drops of laudanum may in that case be administered with one or two drachms of the Epsom salt.

When the morbid irritation has ceased, the rhatany-root will prove very beneficial in promoting digestion and restoring tone to the intestines. It may be given in the following manner:—

Take of extract of rhatany root, one drachm; aromatic tincture of ditto, six drachms; pure water, seven ounces.

Two or three table-spoonsful to be taken every four hours.

The treatment of this disease must in a great measure depend on the *nature* of the fever accompanying it, and in all cases must be varied according to the predominating symptoms, &c. As the fever in general is of an ambiguous nature, it will be advisable to call in regular assistance in the first instance.

This disease is often epidemic, and is no doubt often propagated by the effluvia arising from the stools of the patient. The fæces should therefore not remain in the house, but immediately be conveyed to some distance, and the vessel afterwards washed with vinegar. The room should likewise be often fumigated with nitrous vapour (see page 96), which will not

only prevent the disease from spreading, but contribute considerably towards the recovery of the patient.

If the disease be complicated with intermittent fever, the rhatany-root, or Peruvian bark, should be employed in the earlier stages of the disease: great care should be taken not to confound the rigours generally attendant on dysentery with intermittent fever, which would lead to maltreatment of the disease. In all cases, flannel should be worn next the skin.

DISTINCTION.— This disease may be distinguished from diarrhoea, not only by being attended with a greater degree of fever and pain in the bowels, but particularly by the stools consisting chiefly of a *slimy mucus*; in which the natural fæces are seldom observable; and when so, they are in hard pieces or lumps.

OF EPILEPSY.

In consequence of the patient suddenly falling to the ground, on an attack of this disease, it is also called *Falling Sickness*; and from its affecting the mind (being the most noble part of the rational creature), it is termed, by the ancient writers, *the Sacred Disease*.

SYMPTOMS.— It consists in an involuntary and violent convulsive contraction of the greater part of the muscles under the immediate influence of the mind, particularly those of the extremities, the eyes, the tongue, the lower jaw*, and the bladder, attended with foaming at the mouth, and total loss of sensation, and ending in a state of insensibility and apparent sleep. The patient, on becoming sensible, complains of torpor, heaviness of the head, and general lassitude. The fit often attacks suddenly, but for the most part is preceded by a pain in the head, lassitude, dimness of the eyes, and a kind of tremulous sensation, beginning in the lower extremities, often in the great toe, and ascending to the head. The fits frequently recur during sleep.†

* By-standers, unacquainted with the nature of these fits, suppose the patient to be in great agony. During the convulsion, he is in an insensible state, and his sensations on recovery are often more pleasurable than otherwise. Sometimes, however, they are the reverse, and the horror some experience remains on the mind for many days.

† I was requested to see an epileptic patient a few years ago, who was always attacked with the disease on going to bed, and continued more or less convulsed all night. He, however, rose every morning at the usual hour, without the least knowledge of what had happened, and apparently refreshed by his night's rest; nor would he have known that he was subject to fits, had not his bed-fellow acquainted him with the circumstance.

CAUSES.—The dissection of epileptic persons has shown a variety of morbid appearances, as tumours in the brain or membranes; caries or preternatural projections of the internal surface of the skull-bone; collections of serum, or purulent matter; and earthy concretions within the skull: while others, who have died of epilepsy, have exhibited no morbid appearance whatever. Aneurismal affections of the arteries of the brain, I believe to be often the cause of this disease, by the pressure and irritation produced by their distension, which often ends in fatal apoplexy or palsy, from the rupture of the aneurismal sac—a termination by no means unfrequent. It is likewise produced by the irritation of worms in the stomach or intestines, particularly the tape-worm; also by dentition, and by violent passions of the mind, both of the exhilarating or depressing kind, as anger, joy, terror, and grief.*

In children, epileptic fits are often attendant on dentition, and precede the eruption of small-pox and measles, and sometimes occur in females that are subject to a retention of the menstrual evacuation; but they more frequently proceed from an hereditary disposition. See CONVULSIONS OF CHILDREN, p. 151.

TREATMENT.—Various remedies for this disease have been recommended from the time of Galen to the present period; but experience has proved fatal to their reputation. The *nitrate of silver*† has lately been recommended as a specific for epilepsy, which, unfortunately, has not been confirmed by the experience of others, several cases having been published in which it proved of no advantage. When the disease arises from worms, the Basilic Powder, No. 36, or the Electuary, No. 86, with the use of lime-water, and the Tonic Mixture, No. 77, will prove beneficial. See WORMS.

When the cause cannot be ascertained, if the patient be of an apoplectic make, and of a plethoric habit of body, bleeding will be proper, but not otherwise; as the loss of blood, by inducing debility, will render the recurrence of the fits more frequent. Valerian tea, with the tincture of the Russian castor, may be tried, with the following pills:—

* Van Swieten's Commentaries, vol. iii. p. 414.

† When the nitrate of silver was first recommended as a specific for epilepsy, Dr. Cheston gave it a trial at the Gloucester infirmary. The first case that occurred, was a young man that had been subject to attacks twice a day for many years. After the exhibition of two or three doses, the fits suddenly left him, and he was shortly after discharged cured. He soon experienced a relapse, for which he was re-admitted, and the same medicine administered without producing any beneficial effect whatever.

Take of nitrate of silver, one scruple ; extract of white poppies, two scruples.—Mix well together, and divide into twenty-four pills, of which one may be taken twice a day.

If these pills afford no relief, after twelve days' perseverance in their use, (for I do not conceive it safe to continue them longer, unless the patient derives very considerable advantage from them, without producing any derangement of the digestive organs or bowels,) the following are worth a trial :

Take of vitriolated zinc, half a drachm ; essential salt of bark, one drachm.—Mix : and divide into twenty pills : two to be taken twice a day, with a draught of valerian tea.

The following bolus, much recommended by Dr. Hugh Smith, is a favourite remedy with many routine physicians :

Take of Russian castor, one scruple ; oil of hartshorn, six drops ; the confection called Paulina, ten grains.—Mix, for a bolus, to be taken every six hours.

The flowers of cardamine have been prescribed with advantage by Sir George Baker : the fresh powder may be taken, to the extent of a drachm, three or four times a day.

Mr. Hodgson, of Bishopwearmouth, has published a case of a young girl, about eight years of age, that was cured by electricity. A young lady was cured by Citizen Portal, who had experienced a fit every day. The attack commencing in one of her toes, suggested to that able anatomist the idea of dividing the nerve, for the purpose of interrupting the communication with the brain ; but he began by the application of opium to it, and that alone effectually prevented a recurrence.

The good effects of calcined zinc have been attested by Dr. Haygarth, of Chester ; Dr. White, of York ; and Mr. Bell, of Edinburgh.

The following prescription, for the exhibition of this medicine, is given by Dr. Saunders :—

Take of calcined zinc, eight grains ; conserve of roses, sufficient to form a bolus.—To be taken twice a day.

A Treatise on the Efficacy of the Mistletoe of the Oak in the Cure of Epilepsy, was published a few years ago ; by which it appears, that it has been administered in three different cases of epilepsy, with complete success ; all of which, it is stated, previously baffled the skill of several eminent practitioners ; and the author asserts, that its exhibition has uni-

formly been attended with success under his directions. A case of this disease in a lady of quality, in which it proved remarkably successful, is related by Boyle; and, some years afterwards, its use was strongly recommended by Sir John Colbach, who has published several instances of its good effects. In a few cases, in which I have known it exhibited, it totally failed to produce any salutary effect whatever, while, in others, it has entirely suspended the disease.

As there is incontrovertible evidence, that these medicines have succeeded in certain cases, and as the disease arises from such a variety of causes, they are all deserving of trial; for, in the treatment of so distressing a complaint, no plausible remedy should be left untried.

In the Monthly Gazette of Health, several remedies are recommended by eminent physicians of the Continent, which should be employed if the above treatment should not succeed.

If the patient be affected with pains in the head, a seton in the nape of the neck should not be neglected, and the feet should be kept warm by the use of flannel socks.

Mr. Mansford, an eminent surgeon of Bath, has lately published a scientific dissertation on the causes and treatment of epilepsy; in which he states that he has succeeded in curing several cases of long standing, by the Galvanic fluid. The mode of application is given in the 48th No. of the Gazette of Health.

The tincture of the seeds of the *Colchicum autumnale* has lately been administered with great success, in cases of epilepsy of long standing: the dose is from twenty-five to forty drops two or three times a day. It may be taken in a wine-glassful of the decoction of Peruvian bark, or infusion of the wild valerian root.

The diet must depend on the state of the constitution of the patient: if he be debilitated, it should be nutritious, but not stimulating. Distilled water affords the best beverage: this article, though simple in itself, may, by quieting the system, and promoting digestion, prove of more real and permanent advantage than the most potent medicines. Hippocrates judiciously directs a total change in the manners of life, that former habits may lose their influence.

The seat of this disease is evidently the brain and nervous system; and, therefore, whatever tends to render the body irritable, will produce a fit. A great sympathy existing between the brain and stomach, epileptic patients are more affected with fits when the stomach is disordered; hence, in all cases of epilepsy, we should pay particular attention to the state of the digestive organs, and the epileptic patient should avoid every

thing that has a tendency to disagree with the stomach. When the stomach of an epileptic patient is relaxed or weak, stimulants and astringents, such as lunar caustic, flowers of zinc, &c., will often succeed in preventing a recurrence of the fits ; and hence many routine physicians conclude, that the remedies are antispasmodic.

When the disease arises from organic mischief in the brain, he should avoid all excesses, and particularly those which have a tendency to stimulate the body or mind. He should attend to the directions given under the treatment of INDIGESTION ; and, for the purpose of allaying morbid irritation of the brain, it would be advisable to wash the head with cold water every morning, for which purpose the head should be shaved. If the patient be of a plethoric habit, an issue or seton in the nape of the neck is a very important remedy. Whether the morbid irritation of the brain be connected or not with organic mischief, or any local cause, this treatment is proper.

The power of the association of ideas is, in this disorder, very remarkable: a gentleman now resident in the city of London, was always seized with an epileptic fit on entering his carriage ; and Van Swieten relates a case of a child, who, after being frightened into an epileptic fit, by a great dog leaping on him, experienced a return for some time afterwards on seeing a large dog, or even by hearing his barking at a distance. It is a well-known fact, that the mentioning or recalling to the mind any particular circumstance that attended an epileptic fit, will often reproduce it. Hence, the learned Galen very judiciously advises all things to be avoided that lead to the recalling the disorder to the memory. Others of the ancient physicians, observing how much this complaint is connected with mental affections, and how it may be reproduced by reflecting upon it, have endeavoured to abstract the mind from such ideas, by exciting impressions still more powerful. Upon this principle it was, I apprehend, advised by Pliny, for the patient to drink the warm blood of a gladiator, that issued from him in the agonies of death. Scribonius Largus directs a portion of his liver to be eaten for the same purpose ; and Aretæus not only mentions these articles, but several others of the disgusting kind, as the raw heart of a coot, the brain of a vulture, &c. If these strange hideous remedies could have any efficacy, it must be owing to their absorbing the attention, and, of course, leaving no room for the apprehension and recollection of the disorder to operate ; and, in this way, it is possible they may have been of service. The relics of saints, and such-like trumpery, have, on the same principle, obtained celebrity in the prevention of this disease : the

religious ideas connected with them, no doubt, in those superstitious times, operated powerfully on the imagination.

As the nervous system is more affected through the medium of the mind than by the effects of medicine on the body, whatever produces a serene state of mind, powerfully tends to allay irritation of the brain. (See INTELLECTUAL FUNCTIONS OF THE BRAIN, page 159.)

DISTINCTION. — This disease may be distinguished from apoplexy, by the convulsed *action* of the muscles; and from hysterical fits, by *not* being attended with the spasmotic contraction of the muscles of the *gullet*, giving the patient a sensation of a ball rising in it; and by the patient having *no* dread of death.

Recapitulation. — The irritation of the nervous system in this disease arises from organic mischief or partial disease of the brain, or from the irritation of worms in the intestines. In the latter case vermifuge medicines (see WORMS), and tonics, will succeed in preventing a recurrence of the fit. When the cause is in the head, the object is to keep the system in a quiet state, and, for this purpose, a seton in the nape of the neck is the most powerful remedy; which, with such medicines and diet as the state of the body, with respect to debility and fulness, may indicate, will answer best.

OF ERUPTIONS OF THE SKIN.

Under this head I shall include the treatment of the chronic eruptions of the skin, generally, but improperly, termed *Scorbutic*.

When pimples, or pustules in the face, are the consequences of high living, or excessive drinking, the best remedy is the aperient sulphureous water, or the Epsom salts, as directed page 8.

The scaly affections of the skin, or clusters of small pimples, unattended with fever, will gradually yield to the medicines recommended under the head of *Tartarised Antimony Wine*, (see also Nos. 2, 34, 54, and 55,) with the topical application of the ointment, No. 106, p. 67.

When inflammatory eruptions follow fever, they should be considered salutary, and treated *only* by internal remedies till the fever and local inflammation have subsided, when the health of the parts that have suffered may be recovered by the Alterative Ointment, No. 106, page 72.

For the chronic inflammations of the skin, appearing in patches over the body, in the spring and autumn, (generally termed leprosy, and by some scurvy,) the following medicines I have never known to fail in the most obstinate cases: —

Take of precipitated sulphur of antimony, one drachm; prepared calomel, fifteen grains; conserve of hips, sufficient to form a mass. — To be divided into thirty pills. One to be taken twice a day, with a draft of the decoction of the sassafras nut. (See page 94.)

After taking the pills four days, a little of the following ointment should be rubbed over the parts affected every night: —

Take of ointment of nitrated quicksilver, spermaceti ointment, of each equal parts,

To be well mixed in a *glass* mortar, or with an *ivory* spatula, as metals will decompose the nitrated quicksilver, and thereby destroy the efficacy of the ointment.

The eruption termed ringworm is too well known to require description. A very popular, and generally successful application, is common ink, the efficacy of which chiefly depends on the quantity of steel it contains. The muriated tincture of steel, diluted with an equal quantity of water, is equally efficacious, and a much neater application. When it resists this remedy, the following ointment may be rubbed over the part every night and morning: —

Take of the cerate of nitrate of quicksilver, six drachms; saturated solution of nitrate of copper, ten drops.

The solution of the Epsom salt, with sulphur, recommended No. 2, page 8, will also be very proper.

In all cases of eruptions of the skin, the state of the digestive organs should be particularly attended to; for imperfect digestion is often the source of the most obstinate cutaneous affections, and never fails to aggravate them. Before, therefore, an alterative course of medicine be adopted, it will be proper to clear the first passages by an emetic, and a brisk aperient medicine, and to strengthen the digestive organs by the use of the mixture of salt of bark and soda, in the proportions recommended, No. 75, page 64. When the disease is attended with a morbid irritation of the absorbent system, termed scrofula, which is frequently the case, the prepared natron, taken as directed, No. 60, page 58, will prove a powerful auxiliary.

Dr. Gales, a physician residing in Paris, has lately recommended the application of sulphureous vapours to the body, as an effectual remedy for *all* chronic affections of the skin. The Doctor has presented the author with one of the machines employed by him for this purpose, in order that the practice may have a trial in this country.

In the fourth number of the Monthly Gazette of Health, a very interesting article on the prevention and cure of constitu-

tional eruptions of the skin appears, which the author recommends to the serious perusal of his readers, who are subject to such affections.

The diet should consist principally of vegetables, unless the strength of the system be much reduced, when fresh meat may be allowed.* Salted and fat meat, high-seasoned dishes, and spirituous liquors, should be avoided. Distilled water, or whey, or buttermilk, will afford the best beverage.

Children, from their birth till after teething, are subject to a variety of eruptions of the skin, such as the red gum, tooth-rashes, nettle-rash, watery eruptions, &c., which, although they differ in appearance, progress, and extent, seem to arise from the same cause, viz. a vitiated state of the humours from predominating acidity in the stomach, or the milk of an unhealthy nurse. In the treatment of these early eruptions, external applications should never be employed, unless prescribed by a skilful physician or surgeon, or the practitioner be well acquainted with the diseases of infancy. Exposure to cold should be carefully avoided, and the state of the stomach corrected by small doses of magnesia, to which a little cretaceous powder may be added in case the bowels are much disturbed. If the child be of a gross habit of body, the basilic powder will also be proper, as directed, No. 36, p. 43. As the milk of the nurse is often in fault, she should take a tea-spoonful of the tincture of Columbo, with a little magnesia, in simple peppermint-water, two or three times a day, to promote digestion, and to obviate costiveness. When the scales of the eruptions of infants become troublesome from hardness, a little spermaceti ointment, or cream, may be applied to them. See RED GUM, p. 155, and THRUSH, p. 156.

Cutaneous diseases have claimed a large share of attention from some medical theorists, who have given every blemish a fine sounding name, and enumerated species and varieties which only existed in their imaginations. Their elaborate classifications have been attended with no practical utility whatever; for the authors who have expressly written on them, have been the most unsuccessful in their treatment. In all cases of eruption the first point to determine is, whether the eruption be constitutional or local; and if the former, whether it be the consequence of fulness of the system, or of debility and bad digestion. When the constitution is in fault, the eruption is to be considered of a critical nature, and, as already observed, should be treated by internal remedies.

* The sassafras nut, noticed page 94, affords a very nutritious and corrective breakfast and evening repast.

In the latter case, the treatment recommended for indigestion, with the application of the ointment, No. 106, p. 72, will prove the most beneficial. The same diseases of the skin exhibit different appearances from a difference in the structure of the parts in which they occur, and the extent or depth of the mischief, *i. e.* the disease of the scalp, termed scald head, is very different in its appearance and progress when it occurs on a tender, or irritable, or a thick skin. It again varies accordingly as it is confined to the cuticle, or extends to the rete mucosum, the cutis, and the cellular membrane beneath the skin. The state of the constitution also gives a different character. These remarks apply only to the eruptions which are not produced by contagion. The constitutional and local treatment recommended above, therefore, apply to all the diseases of the skin that do not arise from contagion, or what are termed eruptive fevers.

OF EXCORIATION.

When excoriation is the consequence of friction, it may be cured by applying to the surface the Spermaceti Ointment, No. 41, or the Discutient Lotion, No. 92.; but in case of much inflammation, the Emollient Poultice, No. 112, will be most proper; and, if attended with fever, or a full or bad habit of body, the Aperient Mixture, No. 62, will also be necessary. After the due operation of the aperient medicine, from five to ten drops of laudanum may be taken at bed-time, or twice a-day, with the view of allaying pain and preventing mischief. A low diet should be observed till the inflammatory symptoms are gone off. For the *Excoriations of Children*, see **GALLING**, page 154.

OF FAINTING, OR SYNCOPÆ.

SYMPTOMS. — A fainting fit begins with a great anxiety about the heart; the pulse and respiration become suddenly weak, and sometimes to such a degree, as to all appearance wholly to cease, with coldness of the extremities, and death-like palleness of the face, &c.

CAUSES. — These fits are not uncommonly occasioned by excessive evacuations, particularly of blood; they are likewise produced by passions of the mind*, violent pain, impediments

* The effects of mental agitation in causing fainting are well known; and when violent, sometimes prevent the re-action of the system, and consequently occasion sudden death.

to the free circulation of blood, as polypus, aneurism, and ossification of the aorta; and probably sometimes the consequence of the communication between the auricles of the heart, which exist during the foetal state, remaining entire.

TREATMENT.—When the fit is occasioned by excessive evacuations, the body should be immediately placed in an horizontal position, in a current of air, and the acetic acid, or sal volatile, applied to the temples; of the latter of which a tea-spoonful may likewise be given in a little cold water: the extremities should be rubbed with *warm* flannel, and *cold* water sprinkled over the face and neck. After the recovery from the fit, if the patient be much debilitated, he should be supported by a nourishing diet, as beef-tea, arrow-root jelly, with a little wine. When the fit arises from pain, the internal use of laudanum will be necessary, as directed, No. 31, which, by allaying irritation, will in such case prevent a recurrence. When fainting is produced by passions of the mind, and the patient be plethoric, the loss of blood from the arm will be necessary. If debility be the cause, the Tonic Mixture, No. 77, should be taken, as there directed; and if obstruction of the circulation, from polypus, organic disease, or morbid irritability of the heart, the Euphorbium plaster may be applied over the breast-bone, and much bodily exertion, or whatever tends to hurry on the circulation, should be carefully avoided.

Nothing conduces more to increase the morbid irritability of the nervous system, which is a cause of fainting, than a *studious solicitude* to avoid every thing that is likely to have that effect: it fixes the mind on the very object we would wish to avoid, and by *augmenting* the effects of *trivial* accidents, multiplies the number of causes that may produce the disorder dreaded: a firm resolution to resist the effects of frivolous incidents upon the mind, and of course on the nerves, is far preferable. Haller has related a story, where a disposition to fainting was conquered by a great exertion of the will; and almost every person has seen temporary fits of a similar kind put off by the struggles and resolution of the person attacked.

As there exists a great sympathy between the brain and stomach, people subject to fainting should pay particular attention to the state of the stomach, and to avoid every thing that is likely to disorder it, or disturb the nervous system. (See Treatment of Indigestion.)

OF FILMS, OR SPECKS ON THE EYE.

For the removal of films, or small specks on the surface of the eye, the Astringent Eye-water, No. 101, page 71, dropped between the eye-lids two or three times a day, is an efficacious application. If they be attended with much inflammation, the application of a blister to the nape of the neck; the use of the Aperient Mixture, No. 62; and an alterative pill of two grains of calomel, No. 34, every night for a week, will likewise be necessary.

If the eye-water should not prove sufficiently strong, a little finely powdered cuttle-fish bone should also be blown within the eye-lids through a quill, every night or morning, or applied with a little honey, by means of a camel-hair pencil.

If the patient be of a scrofulous habit, or if the opacity be the consequence of scrofulous inflammation, the mixture, No. 75, p. 64, will also be proper; for although the speck or film may appear trifling, it is of great consequence to improve the state of the general health.

OF FLATULENCE.

So prevalent are flatulent affections of the stomach and intestines in this country, that very few persons are entirely exempt from them. They have, however, by no means met with that attention from the medical profession which their frequency and effects on the constitution demand. Indeed so little have their causes and nature been investigated, that they have been merely noticed as *symptoms* of indigestion. The gas (vulgarly termed wind) disengaged in the stomach is fixed air (technically termed carbonic acid gas), which escapes from badly fermented liquors, and probably is sometimes the product of fermentation of vegetable aliment, in consequence of weakness of the digestive organs. A collection of air in the stomach may therefore in some degree be considered the *effect* of indigestion, but the gas which is found in the large intestines is of a different kind, being carburetted hydrogene, and evidently not altogether the effect of indigestion, for it occurs in patients whose digestion is good. The gas is of an offensive odour, being similar to the inflammable gas of gutters or stagnant water.

The air evolved in the stomach is noticed under the head of Indigestion; but as the production of inflammable gas in the intestines is difficult to account for, I shall notice it here as a primary complaint, and, for the sake of distinction, term it *Intestinal Flatulence*.

It is extraordinary that this species of flatulency should have escaped the investigation of Hippocrates, who has so minutely delineated the symptoms of diseases; but, at that period, the nature of the different airs was very imperfectly known. Sauvage, in his Nosology, notices two species of flatulence, viz. the acid * and foetid †, but he considers them to differ only as to smell, and as arising from the same source. Nor do I find that they have been noticed by those pneumatic theorists of the present period, who have endeavoured to prove that many diseases arise from certain decompositions or combinations of airs in the human body, and are to be cured by the exhibition of different gases.

Such as indulge in the free use of spirituous or vinous liquors are most subject to this gas; and it is remarkable, that even the breath of those who are in the habit of frequent intoxication is strongly impregnated with it. Whether this gas be disengaged from the wine or spirit, or whether those liquors, by their chemical action on the inner coat of the intestines, produce a morbid secretion, of which inflammable gas is the consequence, I cannot say. I have, however, met with patients much affected with this air, who were not *apparently* addicted to the pernicious habit of dram-drinking, or of taking wine even in moderate quantity; but from such a circumstance no conclusive inference can be drawn; for those who do not take their cheering glass publicly, may do it privately. Dr. Trotter is of opinion, that spirit either of ale or wine mixes with the blood; "for we know," says he, "that hydrogen, (*i. e.* inflammable air,) escapes from the lungs in such quantity as to be perceived in the breath; we are, however, ignorant what combinations this gas, or other parts of the spirit, may form with the human fluids." Dr. Baillie, in his *Morbid Anatomy*, observes; "It is not unusual to find air accumulated in the intestinal canal in greater or less quantity. This air is sometimes accompanied with slight inflammation of the peritonæum, and at other times not. In such cases, the blood-vessels of the intestines are frequently filled with air. There are only two ways in which we can well conceive air to be formed in the intestines. The one is some new arrangement in the *contents* of the intestines by which air is extricated; the other is, the formation of air in the *blood-vessels* of the intestines, by a process similar to secretion, and which air is afterwards poured out by the extremities of the exhalent arteries into the cavity of the intestines. That the blood-vessels have this power there can be no doubt; and I own,"

* *Flatulentia acida*, Spec. 1. Sauv.

† *Flatulentia nidorosa*, Spec. 2. Sauv.

says the Doctor, "that this is a very frequent mode by which air is accumulated in the intestines." Of the nature of this gas, this author does not give a decided opinion; but observes, "that it requires to be examined by some person well acquainted with chemical experiments, in order that its quality may be ascertained."

Nervous and hypochondriacal patients appear to suffer so considerably from accumulation of this gas in the intestinal canal, that they in general experience great relief when it passes downward freely. Even violent head-ache, stupor, palpitation of the heart, horror of mind, dimness of sight, noises in the ears, nervous twitchings, dryness and heat of skin, and a variety of other symptoms, have been speedily relieved by its evacuation.

Invalids who are most troubled with inflammable gas are liable to head-ache, rheumatism, and gout, on change of weather, and particularly on the approach of rain. See HEAD-ACHE.

TREATMENT.—The first object in the treatment of this complaint is, to empty the intestines by an active aperient medicine that will also carry off the morbid slime adhering to the coats, and at the same time excite an healthy action in the mucous glands. For this purpose calomel will answer best, three grains of which may be taken at bed-time (made into a pill with a little conserve of hips), and purged off the next day with the solution of Epsom salts, as recommended No. 2, page 8. These medicines should be repeated at least twice a week for a fortnight. In the intermediate time, three table-spoonsful of the following mixture may be taken three times a day: —

Take of aromatic tincture of rhatany root, one ounce; dilute sulphuric acid, one drachm; infusion of buchu leaves, six ounces.
— Mix.

If the constitution has suffered from the free and continued use of spirituous liquors, the patient should continue to take this mixture for at least three or four weeks.

The Jamaica ginger powder is the best carminative that can be used in this case, as it not only effectually expels the gas, but, I believe, also corrects the secretion of the intestines, and, by stimulating their inner coat, occasions them to throw off any accumulation of mucus; thus, the faeces of people in the habit of using it are generally covered with slime.

The application of cold water to the head every morning by pumping on it, or applying to the crown a wet napkin for five minutes, has, in several instances, proved highly beneficial, probably by allaying morbid irritation of the brain, and, of course, of the whole nervous system.

It is scarcely necessary to observe, that the patient should abandon the use of spirituous or vinous liquors; if not imme-

diately, at least by degrees, if he be desirous to obtain permanent relief.

It is a very common practice with routine physicians to desire their patients, troubled with this complaint, to abstain, as much as possible, from a vegetable diet. I have known this advice very strictly followed, but I have not found that the patients have been the least benefited by it: nor is it to be expected, from the nature of the gas, that they would; for the fixed air disengaged from vegetables rather corrects it than otherwise. Indeed, water saturated with fixed air, as the soda water, I have found an excellent palliative, and evidently to correct its foeter. People that overload their stomachs with animal food are certainly more troubled with this species of flatulency than those who chiefly live on vegetables. A proper admixture of vegetable and animal food the author has found best to agree with such patients, and pure water as a beverage.

The cordial medicines of quacks, or, what is the same thing, ardent spirits and wine, afford flatulent patients a temporary relief, by expelling the air contained in the intestines: they, however, afterwards, supply it in greater quantity to the blood; and a patient, encouraged to persevere in the remedy from the transitory relief it affords, does not discover his error till his constitution has so far suffered, that an increased dose of the cordial becomes absolutely necessary to keep up the powers of the system. The mischief that flows from this polluted source of dram-drinking is incalculable. The most robust constitution will give way to it; and when it does not rapidly undermine the system, it leads to other excesses, which, in process of time, will infallibly produce premature death. To say the least of the deleterious effects of dram-drinking, how completely does it frustrate the great ends of social intercourse, the promotion of harmony, and the attainment of knowledge —

“ That feast of reason, and that flow of soul !”

How justly, then, may we exclaim, in the emphatic language of the immortal Shakspeare, “ Every inordinate cup is un-blessed, and the ingredient is a devil.” (See NERVOUS DISEASES, and INDIGESTION.)

OF GOUT.

Under the head, INTRODUCTION TO THE SECOND PART, the author has described the human body as consisting of different systems, viz. the nervous, the lymphatic, sanguiferous, &c., and that in these systems the same disease exhibits different pheno-

mena. When the lymphatic system is tender and easily disturbed, the habit is said to be scrofulous. The disease termed gout is inflammation of nerves, and, of course, the most painful inflammation to which the human body is subject. It is probably, as Dr. Cullen observes, an effort of Nature to restore vigour to a nervous system which has been debilitated or injured by over-stimulation, which she accomplishes by exciting inflammation in their extremities. Like scrofula, this state of nervous system is often transmitted by parents to their offspring.

This disease is divided into Regular and Irregular. When the inflammation appears in the nerves of the joints to a *due degree*, and gradually disappears, after a certain duration, leaving the patient rather in an improved state of health, than otherwise, it is termed *Regular*.

Of the *Irregular* there are three species; viz.

1st. *Atonic* — When there is not power in the nervous system to produce a sufficient degree of inflammation in the extremities; in this case the organs of digestion are impaired, and the general health variously affected.

2dly. *Retrocedent* — When the inflammation in the joints is light, and suddenly abates and occurs in an internal part. And,

3dly. *Misplaced* — When it takes place in any of the internal parts.

Of Regular Gout.

This species of inflammation rarely occurs till the age of thirty-five, unless the hereditary predisposition is very strong.* It attacks sometimes suddenly, but is generally preceded by symptoms of indigestion, as flatulence, loss of appetite, cramp in the stomach, &c. and sometimes by head-ache, stupor, numbness, a sense of pricking in the thighs and legs; — the day preceding the attack, the appetite generally returns much keener than usual. The fit comes on sometimes in the evening, but generally about two or three o'clock in the morning, and, for the most part, in the spring of the year. The ball of the foot, or joint of the great toe, is commonly the seat of regular gout, the pain and inflammation of which uniformly increase, with more or less of a shivering, which abates as the pain becomes more violent, and is succeeded by a hot stage of the same duration as

* Hippocrates observes, that women seldom have the gout, and never before the age of forty-five. In his time and country, perhaps, the ladies were more temperate than they are in the present state of *modern refinement*. It appears, however, that the gout was a familiar disease among the Roman ladies; which Seneca justly ascribes to the luxurious living and debaucheries in which they indulged without controul.

the pain, and with it gradually declines, when a gentle perspiration comes on, and the patient falls into a much-desired sleep.

CAUSES. — A sedentary indolent manner of life, full diet, especially of animal food, and the excessive use of wine and other spirituous liquors *, are enumerated by authors as causes of gout.

TREATMENT. — The treatment of this nervous inflammation in the extremities, or what is termed the gouty paroxysm, must be regulated by the state of the constitution. If the general health of the patient be good, or if it were not preceded by symptoms of indigestion, (as flatulence, cramp in the stomach, &c.) the bowels should be well emptied by the Cathartic Pills, No. 84, page 66, after which, three table-spoonsful of the following mixture may be taken three times a day: —

Take of camphorated julep, twelve ounces ; volatile salt of hartshorn one scruple ; sweet spirit of nitre †, two drachms.—Mix.

The immersion of the extremity in cold water, in this case, is generally very beneficial ; and may, in a healthy constitution, assist Nature in the recovery of the tone of the nerves. The application of warm water, by affording a conducting surface, is equally efficacious, and less hazardous ; for cold, when attended with debility, may prove injurious.

A tincture of the Meadow Saffron Root (*Eau Médicinale*,) has lately been introduced as a specific for gout ; and, by reducing the irritability of the nervous system, has, in many instances, succeeded in terminating the paroxysm : but the apparent advantage obtained by it is a dearly-purchased truce, the inflammation generally returning again in a few weeks ; and, if the gouty paroxysm be kept off by a repetition of the medicine, a degree of nervous debility is induced, often amounting to palsy, and not unfrequently terminating suddenly in death. The application of cold water to the part, in a debilitated habit, is not less dangerous.

The tincture of the *seeds* of the meadow saffron has lately been much recommended by Dr. Williams of Ipswich, as a safe and efficacious remedy for gout. It may be taken from thirty to six

* This disease, the frequent companion of wealth and indolence, has been so often induced by the excess of wine, that in every age it has justly been styled the offspring of Bacchus. This fact is sufficiently substantiated in the records of medicine ; for gout is seldom or never seen in the habitations of poverty and labour. In youth, hard drinking is particularly injurious ; it brings on premature decay, and, more than any other cause, paves the way for the diseases of age before the meridian of life !

† The sweet spirit of nitre should be fresh, and well prepared ; otherwise, by neutralising the salt of hartshorn, it will destroy the property on which its efficacy depends.

drops once or twice a day, or about an hour before the expected recurrence of a paroxysm, in a wine-glassful of simple peppermint water or camphorated julep.

If the stomach be much affected with flatulency, cramp, or vomiting, or the constitution be impaired by repeated attacks, or irregular or free living, half an ounce of the volatile tincture of guaiac gum may be added to the above mixture; and if acidity prevail in the stomach, two drachms of prepared natron. If the patient be advanced in years, or in a very debilitated state, the Gout Mixture, No. 69, page 63, will answer best.

If the pain be very violent, a few drops of liquid laudanum may be given at bed-time. This medicine, by weakening the powers of the stomach, often prolongs the fit; and it is not an uncommon occurrence, after a full dose of laudanum, for the gout to attack the stomach, and disorder the brain, so as to threaten the life of the patient. It should not, therefore, be employed, unless advised by an experienced practitioner, particularly when attended with general debility of the system. The acetic laudanum is much safer, and certainly more efficacious in procuring ease, in cases of gout, than the common laudanum. By its use, a respite of a few hours may be obtained, but the probability is, that it will prolong the fit some days, or even weeks.

When the gout attacks the stomach, or when it occurs in a debilitated habit, warm cordials are necessary, as the cardamom, peppermint or aniseed cordials, ether, or tincture of ginger. The feet should likewise be immersed in warm water, and afterwards well rubbed with flannel.

With respect to applications to gouty inflammation, various opinions have been maintained by physicians, both ancient and modern. If the patient be plethoric, and his constitution but little impaired, the extraction of blood from the part by leeches or scarifications generally abates the pain, and shortens the paroxysm; but in people far advanced in years, or of weakly constitutions, death has been known to follow even the loss of a few ounces of blood. A blister near the part, has been much recommended by Dr. Rush, and is much safer, and, perhaps, not less efficacious than topical bleeding.

The immersion of the limb in cold water affords more speedy relief than any other application; and I have known many instances in which it has proved highly beneficial; but the cases were in a great measure local, being attended with no affection of the stomach, and the constitution, in other respects, healthy. It is in such cases that it has proved of such immediate and essential benefit in the practice of others; but when the constitution is debilitated, and especially when the paroxysm is preceded by a disordered state of the stomach or head, it is an

Herculean remedy ; and, if it do not cure the patient, it will probably kill him. Thus, as Dr. Kinglake remarks, its *quieting* effects are certain.

A gentleman, who has for many years been a great sufferer by gouty inflammation, has lately applied to the inflamed part a liniment, composed of two ounces of olive oil, and two drachms of the vitriolic acid, with great success. In a few hours after using it, although at the time confined to his bed, he has been able to walk with ease. This application, by producing a moist surface, and by assisting Nature in her operation, by gently stimulating the nerves, I have found very beneficial. The muriatic acid has been found to afford relief, probably in the same manner.

Gout being an inflammation of the nerves, the increased heat and pain are no doubt occasioned by an accumulation of electric matter. In the treatment of gout, it is, therefore, of consequence to produce a moist state of the skin of the affected part, in order to favour the escape of this active principle. Gently rubbing the surface of the affected part with the soft electric brush, in the manner recommended for rheumatism, by conducting superabundant electric matter, I have found highly beneficial, and, in many instances, to allay the pain in a few minutes.

An American physician, some time since, recommended the hop as a remedy for gout. In consequence of its anodyne property, it may, in some degree, assuage the pain ; but, as a stomachic medicine, it is very inferior to columbo or camomile flowers. It has been observed by an experienced physician, that gouty people, who have been in the habit of using malt liquor strongly impregnated with the virtue of the hop, generally die suddenly.

Gouty subjects are much affected with inflammable gas in the intestines, the expulsion of which uniformly affords relief ; and it is not unworthy of notice, that this air is discharged from the system in greater quantity as the fit approaches to its termination ; its free expulsion I have, therefore, always considered of a favourable import. The prevention of such an accumulation is certainly of some importance in the treatment of gout. The Jamaica ginger powder, for this purpose, has answered much better than any other aromatic, on account of its warming and invigorating the stomach and bowels, without increasing that feverish state of the constitution which spirituous liquors and the spices, which abound with an essential oil, are very liable to do. The Jamaica ginger has been much esteemed as a remedy for gout by some practitioners ; and instances have been adduced, in which it proved highly beneficial, particularly

in the case of Sir Joseph Banks, by Mr. Stenhouse, which brought it into general use. In the prevention of gout, it is a very valuable medicine; but, during the paroxysm, or when the system is attended with much fever, or plethora, the propriety of exhibiting it in the dose recommended by Mr. Stenhouse is much to be questioned.

Dr. Wilson, of Yoxford, in his Treatise on Gout, recommends a Tincture, which he states to manifest a specific action on gout, and to improve the general health. This tincture the author has found to allay pain, and speedily to restore patients to health. Some cases of cures, effected by it, are published in the Monthly Gazette of Health.—Dr. Balfour, of Edinburgh, recommends friction and percussion as the most effectual means to cure the fit and prevent its recurrences; and several cases appear in the first volume of the Gazette of Health, in which this treatment completely succeeded. This practice was adopted by Admiral Henry, on his own person, thirty years ago, and by perseverance the Admiral succeeded in subduing the disease, and at this time, although nearly arrived to the age of ninety, enjoys a good state of health. The part affected should be gently rubbed with the hammer described under the head of Rheumatism, and the pressure increased gradually till the patient can admit of its being gently beaten with it.—In the 11th and 12th Numbers of the Monthly Gazette of Health, instructions are given for using the hammer, and cures related, illustrative of the permanent good effects of the practice.

Gout being evidently an inflammation of nerves, the passions of the mind have very great influence on it. Van Swieten relates, from Hildanus, that a man, disguised to represent a ghost or spectre, took another, labouring under a gouty paroxysm, out of his bed, and carried him upon his back down stairs, dragging his feet and legs, which were the seat of his pain, down the steps, and placed him at last on the ground. The man thus treated, immediately recovered the use of his limbs, and ran up stairs again with great swiftness, and under the strongest impression of terror. After this incident, he lived many years free from any symptom of the gout. This celebrated author also relates a case of a man being cured by joy. “A person,” says he, “who had for forty years been afflicted with the gout, was condemned to capital punishment, and in consequence thereof led to execution. Just when he expected death, he received an un hoped-for pardon, which affected his limbs in such a manner as to restore to them activity and strength, whereas, before that event, their use was nearly lost;” this person, as well as the other, lived many years totally free from the gout; and that celebrated physiologist, Haller, quotes a case

still more extraordinary, of a cure of the gout by a violent fit of anger. From the influence of the mind on gout, we learn that it is a disease of debility; for the stimulating passions are uniformly beneficial, while the depressing passions are not incapable of bringing on the paroxysms by prolonging it. These effects favour the theory of Cullen, of the inflammation being an operation of Nature, to restore vigour to debilitated or impaired nerves.

With respect to the management of the mind during a paroxysm of gout, the most judicious practice is, perhaps, not to excite, but to moderate, such passions as are symptoms of the disorder itself; and to endeavour to restore, by any safe means*, that calmness and tranquillity of mind which those who are subject to the gout experience on the going off of the fit.

REGIMEN. — The diet, during a paroxysm of the gout, must also be regulated according to the patient's accustomed mode of living, the state of the constitution, and the violence of the symptoms. If the patient have been in the habit of indulging in high-seasoned dishes, and the free use of spirituous and vinous liquors, this is not the time to abandon them entirely, particularly if he be affected with symptoms of indigestion, or the powers of the system be reduced by repeated attacks of gout, or age: they, however, should be allowed in moderation. In other cases, a low regimen should be strictly adhered to, and an abstinence from spirits and fermented liquors should also be enjoined.

Water purified by distillation is recommended by Dr. Lambe, as a common beverage for gouty patients. This author has lately published many instances in which its adoption was attended with the most decided and permanent advantage.

When any swelling or stiffness of a joint remains after the fit has ceased, it may be removed by the diligent use of the electric brush; gentle exercise of the parts; and, in case it prove obstinate, the following liniment may be well rubbed over the part for half an hour, and afterwards washed off with warm water, and the part wiped dry: —

Take of olive oil, an ounce and a half; vitriolic acid, two drachms.

Drop the vitriolic acid into the oil by degrees, and after every ten drops, shake the bottle.

* Charms were as much in use for the gout among the physicians of antiquity, as for any other disease; and, perhaps, when we consider the periodical nature of the complaint, we may not entirely discredit their efficacy.

PREVENTION.—The prevention of gout may be best effected by regimen, and by attention to the digestive organs. Temperance, and exercise proportioned to the strength of the patient, will conjointly prove the best preventive. Accustomed habits of high-seasoned dishes, and spirituous and vinous liquors, by over-stimulating the nervous system, and secondarily inducing nervous debility, should be *gradually* abandoned particularly if the patient be advanced in life, or his constitution much debilitated. As the quality of cordials and rich dishes is diminished, so should the degree of exercise be increased. If a gouty patient have resolution to avoid the temptations of the table, and to reduce by degrees the quantity of wine to two glasses a day, he may still have little cause to regret his former indulgences. Particular attention should be paid to the state of the digestive organs, and especially to the prevention of acidity in the stomach; on any symptom of indigestion, it would therefore be advisable to take a dose of the Cathartic Pills, No. 84, and the Compound Tincture of Ginger and Camomile, No. 7, occasionally, or a small tea-spoonful of ginger powder two or three times a day. It would also be proper to avoid all kinds of fermented liquors, and to take for the common beverage pure water. The instructions given for the treatment of indigestion equally apply to the prevention of gout.

In the 89th number of the Monthly Gazette of Health, the sulphuret (not sulphate) of soda, in the dose of twenty grains once a day, dissolved in a wine-glassful of water once a day, or three times a week, is highly recommended by an Italian physician as a preventive of gout, or, rather, powerful corrector of the gouty habit. The same gentleman speaks highly of the beneficial effect of oiled silk worn over fine worsted stockings.

As there is a disposition in gout to return in spring and autumn, greater attention to an abstemious diet at those periods will be particularly necessary. The composition termed the Chelsea Pensioners' Specific, the basis of which is sulphur, is an excellent preventive remedy. An improvement in the form is given in the 49th and 50th Numbers of the Gazette of Health; and the original receipt is published in the first volume of that work. The pills recommended, No. 84, page 66, and the solution of Prepared Natron, No. 60; or the sulphuret of soda, the Tincture of Ginger and Camomile, No. 7, and Sassafras nut, (see page 94), should also be resorted to on any symptoms denoting the approach of a paroxysm, by which means the recurrence of the disease may be generally prevented. The feet should always be kept dry and warm by means of flannel, or horse-hair socks; — flannel next the skin will likewise be proper.

Since the publication of the last edition of this work, the author has found the application of the Euphorbium Plaster to the loins a very powerful preventive of gout, by invigorating the nerves leading to the lower extremities. In many gouty subjects, the constant use of this plaster has not only kept off a fit of the gout, but restored the limbs, which had been much weakened by frequent attacks of gouty inflammation, to strength and vigour.

Of Atonic Gout.

The cure of this species of gout consists in improving the general health of the patient: for this purpose, the Stomachic Mixture, No. 61, or two tea-spoonsful of the volatile Tincture of Cascarilla, should be taken with an infusion of Jamaica Ginger, or the Compound Tincture of Jamaica Ginger and Camomile, No. 7. In case of nausea at the stomach, an emetic of Ipecacuan Powder, No. 23, and a dose of equal parts of Tincture of Senna, No. 8, and Tincture of Rhubarb, No. 4, should precede the use of these medicines. A generous diet and moderate exercise are indispensably requisite. The feet should be kept warm by the use of flannel socks and cork-soled shoes, and the nerves of the lower extremities invigorated, by the application of the Euphorbium plaster to the loins.

Of Retrocedent Gout.

When gout affects the stomach and intestines, relief is to be attempted without delay, by the free exhibition of warm brandy and water, with a little ginger powder; and if they do not prove sufficiently potent, ardent spirit must be employed. A dessert spoonful of ether has, in this case, answered very well, to which, half an ounce of paregoric elixir will prove an useful addition. The bowels should be fomented, and the feet put in warm water, and afterwards rubbed with the flower of mustard-seed. When gout attacks the head, the same means are to be pursued, with the addition of a large blister to the scalp. A strong mustard poultice to the feet may likewise be substituted for the warm water. When it affects the lungs, half an ounce of the paregoric elixir, with a tea-spoonful of ether and sal volatile, should be given occasionally; a blister applied over the breast-bone, and a mustard poultice to the feet.

Of Misplaced Gout.

When, instead of the usual determination to the joints, the inflammation falls on the lungs, or any internal part, it often

requires to be treated as a *primary inflammatory* affection, by blood-letting, application of blisters over the part and to the extremities, and the use of the aperient and sudorific medicines. But these cases are always so much involved in ambiguity as to render them very improper for domestic medicine: they often perplex even practitioners of experience; and the author has no doubt, but by the injudicious exhibition of cordials in one case, and bleeding in another, many lives have been destroyed. Nothing, therefore, should be done (unless in cases of great emergency) without the sanction of a medical man of experience and judgment. If, however, the life of the patient be in imminent danger, and no experienced practitioner be at hand, a tea-spoonful of spirit of sal volatile and two of ether may be given in cold water, and the Mustard Poultice, No. 111, page 73, applied over the stomach, and to the feet.

General remarks.—By the foregoing account of gout, it appears that the paroxysm is an operation of nature to restore the nervous system, impaired by abuse of spirits, stimulating diet, and excesses, to vigour and health; and, therefore, topical applications to disperse the inflammation, and remedies to weaken the system, are dangerous. That, in the treatment, we must principally attend to the state of the stomach and bowels, by a mild stomachic medicine, and the occasional use of an aperient. That a stimulating liniment or blister, by assisting nature, is often very beneficial. That perspiration should not be checked. That laudanum may be administered to procure rest, in case of violent pain, but that its effects on the constitution tend to keep up the gouty irritation. That the debility of nerves being the consequence of over-stimulation by spirituous liquors, spices, or high-seasoned dishes and excesses, the best preventive treatment is, to attend to the state of the digestive organs as recommended for indigestion. That the Euphorbium plaster applied to the loins by invigorating the nerves leading to the lower extremities, keeps off the gouty paroxysm, and recovers limbs which have suffered by frequent or violent attacks of gout.

OF THE GRAVEL AND STONE.

The gravel consists in small sand-like concretions, formed in the kidneys, and evacuated with the urine. In passing through the tubes (termed ureters) from the kidneys to the bladder, they often occasion a degree of pain, more or less acute, according to the size and form. When a piece lodges in the bladder, it gradually enlarges, and forms what is termed the *Stone*, which, when of a smooth surface, is attended with very trifling inconvenience, till, from its weight and size, it produces mechanical inconvenience, such as numbness in the thighs, and spasms in the calves of the legs, in consequence of compressing the nerves leading to those parts. When the surface of the

stone is hagged, or its form angular, it often excites considerable irritation and mischief in the bladder, occasioning slimy discharge with the urine, and not unfrequently a quantity of blood, a constant inclination to make water and to go to stool, attended with straining, and often very acute pain. Men are more subject to stone than women, in consequence of the urethra of the latter more readily admitting of the evacuation of calculous concretions than that of the former.

CAUSE. — Hippocrates was the first who observed that these concretions were the consequence of hard water; and this opinion has been very generally adopted. Dr. Lister has recently confirmed it by an observation, that the inhabitants of Paris, who use much *hard* water in their aliment and beverage, are peculiarly subject to this disease; and Dr. Perceval asserts, that a gentleman and lady in Manchester, who had suffered much from gravel, were greatly benefited by discontinuing the use of their pump-water, which was unusually *hard*, and drinking in its stead the *soft* water of a neighbouring spring. So beneficial was this change to the lady, that she did not experience the least symptom of the disorder for two years.

Many practitioners, from an analysis of the stone, have attributed its formation to the use of *acids*: were this, however, really the case, we should expect to find the disease most prevalent in those countries where an acid beverage is principally employed. Cider, the common beverage in Herefordshire *, is generally drank in a state nearly approaching to vinegar, and yet in no county in England are calculous complaints more rare. Some authors attribute the disease to impaired digestion: to which may be added a deranged state of the secretory vessels of the kidneys, producing new combinations, the effect of which is the production of calculous matter.

The stone which is formed in the bladder of animals being of a regular structure and composed of animal matter, may be considered of the nature of a parasitical animal, or independent life, deriving its support from the urine.

TREATMENT. — When the gravel or a small stone is passing from the kidneys to the bladder, it often produces considerable pain, frequently attended with nausea or vomiting, which constitute what is termed a fit of the gravel. During this period the principal object of practice should be to relax the parts, and thus obviate inflammation, by the loss of blood from the arm,

* It is worthy of remark, that a case of stone has not occurred at the General Hospital of this county since its establishment, being a period of about forty years.

particularly if the patient be of a plethoric habit; the bowels should be rendered soluble by Castor Oil, No. 3, and a lamento of gruel, and as the latter will not only assist the operation of the castor oil, but act as a fomentation to the parts affected, it may be administered twice a-day.

The warm bath, by relaxing the system, will prove a great auxiliary to these means. After the operation of the castor oil, from ten to twenty drops of laudanum may be given, according to the severity of the pain.

The diet during the fit should be low, and the beverage the almond emulsion, barley-water, decoction of marshmallow root, or linseed tea.

When the calculus has passed into the bladder, which is known by the cessation of the spasms, the pills, No. 81, should be taken, with the aerated soda-water, as recommended under the head of carbonate of soda, No. 60. Dr. Falconer, of Bath, has published several cases in which this water proved very beneficial; and, in my own practice, I have found it to succeed better than any other diuretic medicine. The carbonate of soda is also a very excellent remedy, and probably more powerful than the aerated soda-water (see Carbonate of Soda, No. 60.). An infusion of the wild carrot seed and of the leaves of the bear's whortleberry have proved useful in instances of stone and gravel, particularly when attended with great pain, and coffee-coloured or bloody urine; but the infusion of the buchu leaves has proved more efficacious than any other remedy. Two or three ounces of the following infusion of these leaves may be taken two or three times a day: —

Take of buchu leaves, half an ounce; infuse in a pint of boiling water till cold; then strain for use.

Spirit of turpentine, balsam of copaivi, sweet spirit of nitre, and soap lees, have occasionally afforded great relief.

Distilled water has proved in many instances so very beneficial in gravelly complaints, that I am inclined to believe, if a person were to make use of no other beverage, and employ it in every article of diet, he would continue free from it.

In cases of *red* gravel, magnesia in the quantity of a tea-spoonful two or three times a day, in an infusion of the buchu leaves is an excellent remedy; but when the gravel is *white*, two or three tea-spoonsful of lemon-juice in the buchu infusion will answer best. Magnesia and lemon-juice have been lately much recommended for the red and white gravel by Professor Brande, of London.

When the complaint has existed many years, the structure of the kidneys becomes diseased, which renders it more obstinate.

In this case the Euphorbium plaster should be applied over the loins, and a little mercury taken as directed for indigestion.

Remarks.—By the foregoing account of gravel and stone, it will appear that the best preventive is the adoption of soft or distilled water as a beverage. That the most efficacious remedy, when the gravel is red, is magnesia; and, when white, lemon juice. That when diseased structure has taken place, a little mercury and the Euphorbium plaster over the region of the kidneys will also be necessary. That during a fit of the gravel, bleeding in a full habit, purgative medicines, the exhibition of clysters, the warm bath once a day, and laudanum occasionally, are proper. That in debilitated constitutions, the turpentine medicines and bear's whortleberry generally prove beneficial.

OF GUTTA SERENA.

Gutta serena is a species of blindness, without any apparent disease or fault in the eye, except a dilatation of the pupil. When there is a *total* loss of vision, the disease is said to be *perfect*; and *imperfect*, when there is a power of distinguishing light from darkness.

CAUSES.—This disease consists in a paralytic affection of the optic nerve, in consequence either of compression, debility, or poison.

TREATMENT.—Although three causes are enumerated as producing this disease, the mode of treatment to be pursued for the recovery of the optic nerve is the same. A seton or a perpetual blister to the nape of the neck should be employed, and the discharge kept up for at least two or three months, unless contra-indicated by *increasing* debility of the system. As an internal remedy, mercury in alterative doses, is the most efficacious; and as its good effects depend more on its removing obstruction than on stimulating the nerve, its use should be persevered in till the constitution be sufficiently under its influence (known by a slight swelling of the gums and an increased secretion of saliva), as there are many instances on record that have been cured by salivation after other medicines had failed. The muriate of mercury is generally recommended; but calomel will certainly have as good an effect, and, on account of being much milder, is, in domestic practice, entitled to the preference. Calomel may be administered by making half a drachm into twenty pills with a little conserve of hips; one of which may be taken every forenoon and at bed-time, till the gums become swelled and tender, when they should be discontinued for a week. It will likewise be proper to snuff up the nostrils a little of the asarabacca snuff, as directed page 90.

As a stimulating application to the balls of the eyes, an infusion of Cayenne pepper (made by steeping eight grains of the pepper pods, bruised, in half a pint of cold distilled water in a close vessel for three hours, when it should be filtered through paper for use,) has been employed with success. Two or three drops of this infusion are to be conveyed between the eye-lids twice a day, for a considerable time. It appears this application has been used with success at the Liverpool Infirmary. The pain it excites is, however, often so acute, as to require great fortitude in the patient to bear it for a sufficient length of time. When the patient will not submit to it, the electric fluid (sparks) applied to the eyes twice a day, for six or eight minutes, will often answer as well, and perhaps in most instances better. If an evident distension of the vessels of the head exist, the loss of blood from the temple, either by opening the temporal artery, or by leeches, or from the nape of the neck by cupping, will be necessary. If accompanied with general plethora, twelve ounces of blood should be taken from the arm; and in case of suppression or retention of the menstrual evacuation, the loss of blood will be proper, either local or general, according to the state of the system. In this latter case, the remedies recommended for the retention of the menses should be employed. (See MENSTRUATION.)

Rubbing the affected eye, and occasionally beating it with a small wooden hammer, as directed for rheumatism, has been found very beneficial in this species of blindness.

OF HEAD-ACHE.

Under the head of INTRODUCTION TO THE SECOND PART, page 158, I have noticed the important offices of the brain in the animal economy, and also the causes which disturb its function.

No complaint is perhaps more prevalent in this country than head-ache. It is generally not considered a *primary* affection, but as arising from a variety of causes, such as general or local plethora, in consequence of suppression of customary evacuation, and obstructed perspiration. When such head-ache occurs in a person disposed to apoplexy, and attended with giddiness, pulsating sensation in the head, and noise in the ears, it should be considered a *premonitory* symptom of apoplexy, and the preventive means recommended for that disease, page 195, should be employed without delay.

Head-ache is frequently of a rheumatic nature, when the membrane covering and lining the skull is principally affected. In this case the patient will experience a slight pain on pressing

the scalp. This species of head-ache often alternates with pain in the shoulder, or some other parts of the body.

Head-ache is very often the consequence both of an *increased* and *diminished* irritation of the brain, when it is termed *Nervous Head-ache*. This species is generally produced by close application of the mind, particularly on abstruse subjects. In consequence of the great sympathy that exists between the womb and brain, females are very subject to this complaint. With them it is often periodical, and sometimes very regular in its diurnal attacks. This species is often attendant on debility of the system, and is produced by great evacuations, as loss of blood, frequent suckling of children, &c. (See *NERVOUS DISEASES*.)

Head-ache is likewise very often symptomatic of indigestion; for so great is the sympathy between the brain and stomach, that it is often difficult to determine which is primarily affected. People who are subject to preternatural determination of blood to the brain are always more or less affected with indigestion, nausea, &c. in consequence of the slight compression of the brain from distention of blood-vessels. When it arises from a foul state of the stomach, it is generally termed *Sick Head-ache*, and is speedily relieved by vomiting. Nervous head-ache is also often connected with flatulence in the intestines. Why this air should produce head-ache is difficult to say; but certain it is, that the most obstinate head-aches are often relieved by its expulsion from the intestines. Those who have had an opportunity of observing the morbid appearances of the brain, so frequently exhibited on dissection, cannot be surprised at the frequency or the obstinacy of complaints of the head; but on the contrary, from the disease that is so often found in the membranes, and the tumours in the substance of the brain, that the sufferings of the patients were not much greater. A deposition of earthy matter in the coats of arteries is often the cause of head-ache; and I believe the blood-vessels are more frequently the seat of pain than the brain itself. The blood-vessels are not only subject to a chronic inflammation, of which the deposition of earthy matter is the effect, but also to ulceration, which by destroying the coats of the vessels, blood becomes effused within the head, and fatal apoplexy is produced: hence apoplexy is not always the consequence of over-distention of the vessels, as is generally imagined.

TREATMENT. — In cases of head-ache, it is a very essential point to ascertain the state of the blood of the brain, as to plenitude or depletion, and whether the complaint be primary or sympathetic. If it arise from increased vitality or local or general plethora, the loss of blood will be proper, either by leeches or

cupping; which, with the use of the Cathartic Pills, No. 84, page 66, and a spare diet and exercise, will generally effect a cure. If it resist these remedies, a blister should be applied to the nape of the neck, and the feet immersed for ten or fifteen minutes in warm water, and afterwards kept warm by flannel socks. Ether may likewise be applied to the temples and forehead, and cold water to the head. People subject to this species of head-ache will receive great benefit from the application of cold water to the head every morning, and by keeping the feet warm with flannel socks. The means recommended for the prevention of apoplexy, page 195, are applicable to this species of head-ache.

For the *rheumatic head-ache*, which generally occurs on change in the atmosphere, and particularly during the prevalence of the north-east wind, the volatile tincture of the Guaiac Gum, as directed, No. 20, page 23, warm fomentations, the Cathartic Pill, No. 84, page 66, small doses of the Antimonial Powder, No. 37, every night at bed-time; the Asarabacca Snuff, as directed, page 90, and the warm-bath, are the most powerful remedies. If it be attended with general plenitude, the loss of blood by leeches or cupping, and a blister to the nape of the neck, will also be proper. The aperient sulphureous salt (sold under the name of the sulphureous Harrowgate Salt) has in many instances entirely cured this species of head-ache, after more active medicines had failed. A flannel cap should be worn during the night. (See RHEUMATISM.)

For the cure of the sub-irritative *head-ache*, or *head-ache* arising from relaxation or debility*, the exciting cause should be avoided, and whatever is likely to irritate the mind. If the digestive organs be affected, an emetic should precede the exhibition of other medicines; after the due operation of which, the following mixture will prove highly beneficial: —

Take of essential salt of the rhatany root, three drachms; camphorated julep, three ounces; compound spirit of ammonia, three drachms; alkaline tincture of steel, two drachms; mint-water, eight ounces. Three table-spoonsful to be taken three times a day.

* It is sometimes difficult to determine, whether head-ache be super-irritative or sub-irritative. If it be attended with redness of the eyes, giddiness, pulsation, and an aggravation of pain on sneezing or stooping, there can be no doubt but that it is of the former kind; but if the eyes be pale, and the patient experience relief on sneezing or stooping, it may be considered of the latter kind, or what is generally termed *nervous*.

If the patient be subject to costiveness, three drachms of the sulphate of magnesia may be added to the above mixture; or, in case of acidity predominating in the stomach, two drachms of the prepared natron. I have had repeated opportunities of giving this medicine a trial in very obstinate cases of nervous head-ache, and in no one instance has it failed to produce the desired effect.

Ether may likewise be applied over the part of the head most affected, as directed, page 17, and the asarabacca snuff used as directed, page 90, which, by exciting sneezing, and producing a discharge from the inner membrane of the nostrils, often affords instantaneous relief.

If the patient be troubled with flatulency, a little ginger powder may be taken in the common beverage.

When head-ache arises from indigestion, which is a very common cause of complaints of the head, the directions for the treatment of indigestion will succeed in curing it. (See INDIGESTION.)

Electricity has been much recommended as a remedy for head-ache, and the application of the electric aura to the head has often given relief: it, however, frequently recurs with increased violence after its use; and when the disorder has arisen from fulness of blood-vessels, it has so increased the determination of blood to the head as to produce apoplexy.

Head-ache is sometimes occasioned by an accumulation of electric matter, in consequence of the dryness of the scalp and surface of the body not allowing a proper medium for its passing off. This species is generally attended with a considerable disengagement of air in the intestines. The application of warm water to the head, and brushing the hair with the electric brush (as recommended for gout), generally afford immediate relief in this case.

The application of ether to the temples, washing the head with cold water, the asarabacca snuff, as directed page 90, a blister to the nape of the neck, keeping the feet warm by wearing flannel socks, attention to the state of the digestive organs, and avoiding full meals, and spirituous or vinous liquors, with moderate exercise, will, generally speaking, prove highly beneficial in mitigating, if not effectually curing, habitual or chronic head-ache, from whatever cause it may arise. In chronic or periodical head-ache, it is likewise of consequence to attend to the secretions of the head, particularly of the ears and nostrils: the former may be increased by introducing a little lamb's wool moistened with camphorated oil, and the latter by the asarabacca snuff. Simple as the two last remedies may appear to be, the author has found them powerful auxiliaries.

Remarks.—Head-ache is a complaint that arises from opposite causes, viz. fulness and depletion of blood-vessels; rheumatism or morbid irritation of the external covering of the skull-bone, and disordered state of parts with which the brain particularly sympathises, as the stomach and womb. When fulness of blood-vessels, either local or general, prevails, the loss of blood is necessary, and an aperient medicine. If it be local, the feet should be kept warm. The means recommended for the prevention of apoplexy are applicable to this species of head-ache. When, on the contrary, the system is in a relaxed or debilitated state, tonic medicines and the asarabacca snuff are necessary. When the complaint is principally external, the remedies recommended for rheumatisms should be employed with the asarabacca snuff, and a flannel cap worn during the night; when it arises from irritation in the womb, or a disordered state of the stomach, the treatment recommended for hysterics should be adopted in the former case, and that for indigestion in the latter.

OF HEARTBURN.

Heartburn consists in an acute burning sensation about the pit of the stomach, sometimes attended with great anxiety, difficulty of breathing, acid eructations, flatulence, inquietude, and retching to vomit.

CAUSES.—This disease may be attributed to increased excitement or sensibility of the stomach, from the abuse of stimulating liquors or gluttony, the consequence of which is, the vegetable food runs rapidly into the acetous fermentation, and if the food be mixed with malt liquor, wine, or sugar, an acid will be produced, capable of exciting a burning sensation in the stomach, and of inflaming the gullet and palate on being vomited, whilst the fat part of meat will become extremely acrid. Sometimes the increased excitement is the consequence of organic disease.

TREATMENT.—Immediate relief follows the exhibition of an absorbent or alkaline medicine, by neutralising the acid; as magnesia, salt of wormwood, soda, or lime-water. When the bowels are confined, either of the three first articles may be taken as directed under their respective heads; but when the bowels are much relaxed, which is often the case when organic disease exists in the stomach, or intestines, lime-water should be preferred. As the stomach is always more or less in fault, some bitter medicine should accompany the use of these remedies, in order to prevent its recurrence; for this purpose the following mixture, if the complaint be not attended with purging, will prove very beneficial, after the operation of an emetic:—

Take of carbonate of soda, No. 60, a drachm and a half; sp. sal volatile, one drachm; alcaline tincture of fumitory, six drachms; pure water, seven ounces. Two table-spoonsful to be taken three times a day.

If the patient have an aversion to medicine in a liquid form, the following pills may be substituted for the above mixture:—

Take of extract of camomile flowers, one drachm; dried sub-carbonate of soda, a scruple; powdered rhubarb, one scruple; oil of caraway seeds, eight drops. Mix well together, and divide into twenty-four pills, two or three of which are to be taken twice a day.

A draught of water generally affords relief, by diluting the acidity in the stomach. The diluted vitriolic acid, taken as directed, No. 18, will often succeed in curing heartburn, after the absorbent and alkaline remedies have failed to remove it entirely, by preventing fermentation. The same rules as to diet and exercise should be observed, as recommended for indigestion.

If the pain should recur, notwithstanding the use of these remedies and proper attention to diet, and the patient be advanced in years, thickening of the coats of the stomach may be suspected, when one of the following pills should be taken every night for a week, and repeated every ten days:—

Take of blue pill, seven grains; extract of hemlock, one scruple. — Mix well together, and divide into seven pills.

Two tea-spoonsful of the alcaline tincture of fumitory may be taken three times a day in a wine-glassful of the decoction of the marshmallow root.

An irritant, as the Euphorbium plaster, should be applied over the region of the stomach. When a deficiency of mucus is the cause, animal jelly will be proper; and when it occurs in a gouty habit, two tea-spoonsful of the alcaline tincture of fumitory in a wine-glassful of lime-water, every three or four hours, will generally afford relief. (See PREVENTION OF GOUT.)

When heartburn is an attendant on pregnancy, the solution of Epsom Salt, as directed page 9, with the use of the Diluted Vitriolic Acid, No. 18, has in my practice uniformly succeeded; but such cases often require a variety of treatment, according as it is attended with a relaxed or costive state of the bowels, debility, and plethora.

For directions with regard to diet, prevention, &c. &c. see TREATMENT OF INDIGESTION.

Remarks. — The production of acidity in the stomach, which occasions the pain termed Heartburn, being the consequence of indigestion, or a disordered state of the digestive organs, we should employ alcaline medicines, to neutralize the acid with a stomachic bitter. If organic disease of the stomach exists, which, in elderly people, is often the case, (symptoms of which are vomiting of slime, and cramp in the stomach,) mercury (the blue pill) is necessary with the Euphorbium plaster over the region of the stomach. The treatment recommended for indigestion is applicable to this disease.

OF HECTIC FEVER.

This fever appears to be produced by pus conveyed to the mass of blood by the absorbent vessels: hence it is an attendant on ulcerations of the lungs, internal suppurations, the formation of matter in a joint, and sometimes large abscesses on the surface of the body. When the symptoms run high, it often resembles an intermittent fever, and, by unskillful practitioners, is not unfrequently mistaken for it. The fever returns every day, with noon and evening accessions. In the morning there is a considerable *remission*, but very rarely a *complete intermission*. It is for the most part attended with profuse nocturnal perspiration, and the urine, on standing, deposits a considerable sediment. (See CONSUMPTION.)

OF HICCUP, OR HICCOUGH.

Hiccup is a spasmodic affection of the midriff, and generally arises from irritation produced by acidity in the stomach, error of diet, poison, &c.

CURE. — When acidity is the cause, twenty-five drops of Sal Volatile, No. 13, with a tea-spoonful of Magnesia, No. 1, in a glass of pure water, will afford relief; and its recurrence may be prevented by the use of the Tonic Mixture recommended for heartburn, page 297. When it is the consequence of improper food, an emetic will be necessary; and, when produced by poison, the means recommended for counteracting the effects of poison should be immediately resorted to.

If it should continue obstinate, or amount to spasms, a tea-spoonful of ether, with eight drops of laudanum, in a glass of cold water, will prove the best remedy. A warm bottle may likewise be applied to the pit of the stomach, and the feet immersed in warm water.

This affection is often cured by whatever *suddenly* arrests the attention, whether the passion connected therewith be of the stimulating or debilitating kind.

In children hiccup is often produced by the irritation of acid matter in the stomach, in consequence of being over-fed; in which case magnesia and rhubarb, in a little mint-water, afford the best remedy; but when it occurs in bowel complaints of long standing, the compound cretaceous powder will prove more beneficial. People subject to hiccup should particularly attend to the directions given for the prevention of indigestion. (See INDIGESTION.)

OF THE HOOPING OR CHIN COUGH.

This disorder is infectious; and, the system once infected being secure from future attacks, children are generally the subjects of it.

SYMPTOMS. — It commences with the symptoms of common cough, which gradually become more violent till it is evidently convulsive, the patient, at times, not being able, for a considerable interval, to inspire; and when inspiration is effected, it is attended with a shrill kind of noise, like the crowing of a cock. These fits, for the most part, occasion so great a determination of blood to the head, that a small vessel of the membrane lining the nostrils often gives way. The eye-lids and eyes appear much swelled, and the fit often terminates in vomiting. It is seldom attended with continued fever.

CAUSE. — It is produced by the action of a contagious effluvium, which, in the first instance, excites irritation in the membranous lining of the windpipe and its branches, and afterwards extends to the midriff, and the muscles of the chest engaged in respiration. The seat of the morbid irritation is the same as that of asthma.

TREATMENT. — The mode of treatment must be regulated by the state of the constitution; for the weakly and robust are equally liable to receive the infection. If the general health of the patient be good, and particularly if the system be plethoric, the extraction of blood by leeches or cupping will be necessary, to prevent the violence of the cough doing mischief to the brain or lungs. The cure may then be attempted, first by an emetic of the Tartarised Antimony Wine, No. 16, and afterwards the mixture *, No. 76, page 65. The Euphorbium plaster should be applied to the pit of the stomach; or, if attended with pain in the chest, a blister over the breast-bone, or between the shoulders, will be necessary. In the early stage of the complaint, these remedies will generally prove sufficient to effect a cure; but if by neglect the disease be once established, it will often run its course in defiance of the most powerful medicines.

This disorder may often be effectually cured by putting the system under the temporary influence of a vegetable poison; for this purpose the extracts of hemlock, the henbane, and deadly nightshade, have been employed by different practitioners, and each has its advocates. As children are differently affected by

* The efficacy of this medicine principally depends on the assafoetida it contains, which, on account of its nauseousness, is generally rejected by children. In such case it may be given clysterwise, by dissolving twenty grains of assafoetida gum, in three or four ounces of gruel.

these medicines, it is impossible to give a general form for their exhibition; for, unless a certain effect be produced in the system to counteract the action of the contagion, it will prove of no avail. The hemlock is much recommended by some writers who prefer the extract; but the powder of the herb is unquestionably the best preparation, and the only one to be relied on. Some physicians prescribe it with other medicines, as syrup of poppies, ipecacuan, and oxymel of squills; but as they may destroy its peculiar properties, it should be given only in a very simple vehicle. The author has generally employed the following form; and when properly managed, so as to affect the system, which is manifested by nausea and giddiness, the author has never known it to fail: —

Take of powdered hemlock leaves, one scruple; mint-water, two ounces; simple syrup, two drachms. — Mix. A tea-spoonful to be given three times a day, to a child of any age, increasing the dose each time about ten drops, till it produce the effects above noticed.

An emetic should always precede the use of this medicine; and if acidity prevail in the stomach, the occasional exhibition of magnesia, as directed, No. 1, or carbonate of soda, No. 60, will also be necessary; to which a little rhubarb powder may be added in case of costiveness. The extract of tobacco, in the dose of one or two grains, dissolved in a little simple water, is a very favourite remedy for hooping-cough with many physicians in Germany. It is a more potent remedy than hemlock, henbane, or the deadly nightshade, and probably not more efficacious. The application of leeches and a blister over the breast-bone, or between the shoulders, is more particularly necessary if the child be born of consumptive or scrofulous parents, as in such subjects the cough is most likely to prove obstinate, or to produce some serious mischief.

When the disease is sub-irritative, *i.e.* attended with general debility and depletion, bleeding and blistering are improper: in this case, the rhatany root, or bark, combined with soda, will prove very beneficial in the following form: —

Take of decoction of rhatany root, or of Peruvian bark, six ounces; carbonate of soda, two drachms; tincture of cardamom seeds, half an ounce. — Mix. From one to two table-spoonfuls to be taken three times a day.

When the disease has induced considerable degree of debility, a change of air is generally very beneficial, and also cold bathing. It requires, however, much judgment to determine when tonic medicines are proper; for although the patient should be much reduced, there may be a preternatural distention

of the vessels of the lungs or brain, or disposition to inflammation, in which cases any strengthening medicine would assuredly prove very injurious.

Dr. Hugh Smith, after observing that emetics occasionally repeated are of great service, and blisters when the symptoms are urgent, directs the following: —

Take of musk julep, six ounces; paregoric elixir, half an ounce; volatile tincture of valerian, one drachm. From one to three table-spoonsful to be taken every three or four hours.

The tincture of artificial musk has been lately much recommended as a specific for hooping-cough. It is given in the dose of ten to twenty drops, in a little barley water, two or three times a day.

The acetate of ceruse I have found more efficacious than any other remedy. The following is the best form for administering it: —

Take of acetated ceruse, six grains; syrup of poppies, two drachms; dill-water, two ounces. — Mix. Two tea-spoonsful to be given to a child of two years to ten, and a dessert-spoonful to an adult, every five hours.

This mixture generally succeeds in subduing the violence of the disease in three days, when the cure may be completed by ipecacuan wine, in the dose of eight to twenty drops two or three times a day in a little barley water.

The tincture of colchicum seeds, in the dose of ten to fifteen drops, three times a day, has lately been much recommended as a remedy for hooping cough; and from its power of allaying nervous irritation, it is worth a trial.

Since the publication of the last edition, the Prussic acid, in the dose of one drop, twice or thrice a day, in almond emulsion, has been much extolled as a specific remedy for hooping cough; and in many cases I have found it to terminate the disease in two days. Being a powerful poison, its effects should be carefully watched.

The diet should be adapted to the strength and age of the patient. In general, equal parts of barley water and fresh milk will be sufficient.

When the disease resists the foregoing remedies, the Balsamic Powder, as directed, No. 36, will prove very beneficial, especially if the patient be affected with worms.* When the cough is become of a chronic nature, it may often, if not always,

* The existence of worms in the stomach is often a cause of the *obstinacy* of this disease. I have known several instances of its ceasing soon after an evacuation of worms.

be cured by keeping up a healthy digestion, and by adopting a regimen that is not likely to disorder the stomach. (See INDIGESTION.)

When this disease proves fatal, it is either by producing convulsions or inflammation of the lungs or brain; and in scrofulous habits, consumption of the lungs, or disease in the mesenteric glands, the prevention of which should be a principal object of practice.

Remark. — The violent action of the diaphragm, which gives this disease its character, is occasioned by a peculiar contagion. The object of practice is, first, to produce a state of system in which its violence may not do mischief, by bleeding and purging; after which, the counter-irritation of a blister, and an anodyne medicine, as the hemlock, or acetated ceruse, are most likely to effect a cure. If the disease has continued so long as considerably to reduce the strength of the patient, the treatment recommended for indigestion and change of air will prove more beneficial than anodynes. On infants, after unloading the system, an emetic of ipecacuan powder once a-day, has a very salutary effect by relieving the stomach of slime.

OF HYPOCHONDRIACISM.

This disease, commonly called vapours or low spirits, arises from debility of brain and nervous system, affecting the general health, and disturbing the intellectual functions. It is distinguished by a concurrence of the following circumstances: A languor, listlessness, or want of resolution and activity, with respect to all undertakings; a disposition to seriousness, sadness, and timidity, as to all future events; an apprehension of the worst or most unhappy state of them, and therefore often, on slight grounds, a dread of great evil. Such persons are particularly attentive to the state of their own health, and to the smallest change of feeling in their bodies: from any unusual sensation, perhaps of the slightest kind, they apprehend great danger, and even death itself; and, in respect to all these feelings and apprehensions, there is, for the most part, unfortunately, the most obstinate belief and persuasion. It is generally attended with symptoms of indigestion, but not always; and sometimes with melancholy.

This turn of mind appears in youth at the period when the sympathy between the brain and genitals is about to be established, as well as in advanced age; and when it has once taken place it generally goes on increasing.

TREATMENT. — No disorder admits of greater scope for the management of the passions than hypochondriacism, which manifests itself in its effects on the mind and spirits. Greater

delicacy, however, is here requisite than is generally allowed by practitioners. It is the practice of hypochondriacal patients often to change their medical attendants, which is certainly not altogether inconsistent: for if the physician do not admit the *reality* of the disease, it is not to be supposed that he will take much pains in curing it, or to avert a danger of which he entertains no apprehension. The sufferers are mostly of a gloomy disposition, and subject to great despondency of mind, concerning their own situation in point of relief, and want cordials and exhilarating remedies to the mind as well as the body. To treat such disorders as merely imaginary, generally irritates choler, and impresses a belief, that their friends have but little concern for their safety and welfare; and, on the other hand, to coincide in opinion concerning the melancholy situation of such persons, depresses the spirits, and tends above all things to aggravate the complaint. The most judicious course is to endeavour to excite the fortitude of the sufferers, by representing to them, it is unworthy a brave and resolute character to be always complaining of misfortunes which are the common lot of mankind; that it is more manly to struggle with ill fortune, than to sink without resistance beneath its pressure. We should also endeavour to abstract the mind as much as possible from reflecting on their own situation and condition of health.

The firm persuasion that generally prevails in such patients, do not allow their feelings to be treated as imaginary, nor their apprehensions of danger to be considered as groundless, though we may be persuaded it is the case in both respects. Such patients are not to be treated either by raillery or reasoning. Dr. Alexander observes, the best way is to keep the mind closely engaged in some useful or agreeable pursuits; hence we learn the superior advantage of those situations in life, which more immediately call for intellectual exertions and bodily exercises. "Industry seldom fails to place us above want, and activity serves us instead of physic." In fact, none are so wretched as those who have nothing to do; they are useless to others, and a burden to themselves.* Constantly impressed with the apprehension of some imaginary evil, they either become the victims of despondency, or the dupes of ignorant and unprincipled pretenders to physic, whose sole aim is to enrich themselves at the expense of the follies or conceits of mankind.†

* "Absence of occupation is not rest; —

"A mind quite vacant is a mind distressed!"

† If in any case, the fraud of what is termed a *placebo* be allowable, it seems to be in treating hypochondriacs, who, anxious for relief, are fond of medicine, and though often disappointed, will still take every new nostrum that can be proposed to them.

As it is the nature of man to indulge every present emotion, so the hypochondriac cherishes his fears, and, attentive to every feeling, finds, in trifles light as air, a strong confirmation of his apprehensions; his cure, therefore, depends upon the interruption of his attention, by diverting it to other objects than his own feelings. Whatever aversion from application of any kind may appear, there is certainly nothing more pernicious to them than absolute idleness, or a vacancy from all earnest pursuits. It is owing to wealth admitting of indolence, and leading to the pursuit of transitory and unsatisfying amusements, or to that of exhausting pleasures only, that the present times exhibit to us so many melancholy instances of this depraved state of imagination. The mind should not only be diverted from the bodily affection, by employments suitable to the circumstances and situation in life, and unattended with much emotion, anxiety, or fatigue; but also by various kinds of sport and hunting, which, when pursued with some ardour, and attended with exercise, if not too violent, are amongst the most useful. Within doors, company which engages attention, willingly yielded to, and at the same time of a cheerful kind, will be always found of great service. Play, in which some skill is required, and where the stake is not an object of anxiety, if not too long protracted, may often be admitted. Music, to a nice ear, is a hazardous amusement, as long attention to it is very fatiguing.

When amusements of every kind are rejected, mechanical means of interrupting thought should be employed. Walking is seldom of this kind; though, as gratifying to the restlessness of hypochondriacs, it has sometimes been found useful. Riding on horseback, or in a carriage of any kind, or sailing in an open boat, on account of engaging the mind, is generally beneficial; but the exercise that proves most effectual, is that which is employed in the pursuit of a journey; first, because, it withdraws a person from many objects of uneasiness and care, which might present themselves at home; secondly, as it engages the person in more constant exercise, and in a greater degree than is commonly taken in an airing near home; and, lastly, as it is constantly presenting new objects which call forth the person's attention.

The symptoms of indigestion and hysterical complaints that so frequently attend this state of mind, although the effect rather than the cause, are objects of practice, inasmuch as they tend to aggravate and realise the false apprehensions of the patient. These secondary affections require the same mode of treatment as recommended for indigestion and the hysterical disease. Warm bathing, and warm tea and coffee, which are hurt-

ful to people with bad digestion, generally afford relief to the hypochondriac.

The ancient physicians referred the cause of this disease to an indolent state of the liver and other viscera situated beneath the spurious ribs, technically termed *hypochondria*; hence it was named by them the hypochondriac disease: and, as these viscera are in all cases more or less obstructed, it will be advisable to administer an alterative aperient medicine with a stomachic, as the following: —

Take of Rufus's pill, one drachm: prepared calomel, fifteen grains. —

Mix well together, and divide into fifteen pills: of which three may be taken two or three times a-week: and three table-spoonsful of the following mixture two or three times a-day:

Take of extract of rhatany root, three drachms; tincture of buchu leaves four drachms; infusion of buchu leaves, twelve ounces. —

Mix. The tincture of buchu leaves is a very efficacious stomachic nervous medicine, and in cases of hypochondriacism attended with weakness of the stomach and general nervous irritability, has been found very beneficial.

The rules for the diet of people affected with indigestion, should be observed by hypochondriacs. See INDIGESTION and NERVOUS DISEASES.

Hypochondriasis is often accompanied with false and perverted notions of the Creator, with gloomy views of life, and a lingering dread of death. On this occasion we can defy the reproaches which are so often thrown out on the *uncertainty* of medicine, and recommend a *certain* cure; — a corroborant for the mind, and a cordial for the heart. If the curiosity of the reader be excited by this declaration, I trust that his hopes will not be disappointed, when I refer him to the doctrine of the New Testament. That doctrine impresses the most cheering notions of the Deity, as the father and friend of man; who is studiously promoting our greatest good in all the varied circumstances of our lives: it teaches us that we are constantly under his guard and protection; and that even the sufferings which He inflicts are intended for our benefit. Here we may find a solution for every anxious doubt, and a place of refuge for every intrusive care. Hence we learn that life is only a probationary state, that it must consequently be chequered with good and evil, in order to form a school of wisdom, in which virtue may be disciplined for the fruition of eternity. To that eternity it teaches us that death is the vestibule; and consequently, that the termination of our mortal existence, which is often such an object of horror to the hypochondriac, ought to be regarded only as the commencement of unspeakable serenity and joy.

But as the melancholy which harasses the peace of the hypochondriac is often shaded with the sombre tint of superstition, those religious books should be particularly perused, which, without insisting on any points of doctrinal uncertainty, tend to inspire a rational and elevated piety, the principles of which consist in the love of God, and in unfeigned good-will to all mankind.

In recommending religion to the attention of a hypochondriac, we should be careful that by seeking to escape one rock we do not split on another. Superstition and enthusiasm are two powerful sources of delusion; and in the hypochondriac, whose intellects are naturally weak, either might produce mental derangement. That devotion is best which is most rational and well founded, and teaches man to regard the moral duties of Christianity. The prevailing temper of the mind is often formed by religion: for nothing can tend more to ennoble and strengthen it than an intercourse with supreme Perfection. The pure love of God naturally connects itself with the love of man; hence rational devotion humanizes our manners, tames our unruly passions, and exalts and expands the mind: it smooths what is rough, and softens what is fierce in our nature; it promotes a humble submission to the decrees of Heaven, and cheerful contentment with our lot, in this transitory existence. Although the mind of the hypochondriac appears to be constantly engaged in the means of preserving life, yet, that his friends should suppose that he totally disregards it, he compares it to a "drop of honey in a pint of gall." The devout man regards life, with all its interests, as a very small part of human existence; and, looking forward to the eternity to which it leads, discovers fresh subjects of admiration and gratitude. He says to his Creator, "Let the men of the world have *their portion in this life: be it mine to behold thy face in righteousness, and when I awake to be satisfied with thy likeness:*" or, as beautifully expressed by POPE:

" This day be bread and peace my lot;
All else beneath the sun
Thou know'st if best bestow'd or not,
And let thy will be done."

In a late publication, entitled, "an Appendix to the Gazette of Health," the author has entered fully into the causes, &c. of the Hypochondriasis of Youth.

OF THE HYSTERIC PASSION.

Females are more liable to this disease than males, in consequence of the great sympathy which exists between the brain and womb. Slight irritation in the latter organ often

disturbs the nervous system so as to occasion the convulsions termed hysterick fits.

SYMPTOMS. — The hysterick fit commonly begins with some pain and fulness in the left side of the bowels, from which the patient has the sensation of a ball moving with a grumbling noise, into the other part of the bowels, and making as it were, various convolutions, seems to pass into the stomach ; and, more distinctly still, rises up to the top of the gullet, where it remains for some time, and gives a sense of suffocation, when the patient is affected with a stupor and insensibility, and the body agitated with various convulsions : commonly the convulsive motion of one arm is that of beating the breast very violently and repeatedly with the closed fist. This state continues for some time, with slight remissions and renewals of the convulsive motions ; which at length cease, leaving the patient in a stupid and seemingly sleeping state. More or less suddenly, and frequently with repeated sighing and sobbing, together with a murmuring noise in the bowels, the patient returns to the exercise of sense and motion, and generally without any recollection of the several circumstances that had taken place during the fit.

In females this disease occurs from the age of puberty to that of thirty-five years ; and very rarely appears before the former, or after the latter of these periods, and generally occurs about the time of menstruation : it affects the barren more than the breeding woman, and the sanguine and robust more than the phlegmatic and melancholic.

It sometimes arises in young women from a peculiar turn of mind, when the passions are high, and the imagination heated.*

TREATMENT. — The morbid irritability of the nervous system attendant on this disease occurring both in plethoric and robust, as well as in the debilitated and leucophlegmatic, the treatment must be regulated by the state of constitution. If the patient be in a debilitated state, the fit may be relieved by the antihysterick mixture†, No. 65, page 62, to each dose of which, in obstinate cases, a tea-spoonful of ether, and ten drops

* A late author justly observes, "that the novels that fill our circulating libraries, which are read with avidity both by mothers and daughters, under the mask of morality, are more injurious to female virtue, than the most openly licentious and immodest publications."

† It is remarkable, that the most nauseous medicines in the *Materia Medica* were recommended by the ancient physicians, and are still employed in the treatment of hysterical complaints. As these remedies produce no salutary effect, when administered, *during* the hysterick paroxysm, it is probable that their operation on the body arises from the disgust they produce in the mind ; and as the ancients paid more attention to the management of the mind during disease than the moderns, it was perhaps with this view that they were first prescribed.

of laudanum may be added. The feet should be immersed in warm water, and spirit of hartshorn, or smelling salts, applied to the nostrils, and cold water sprinkled over the face. If the patient be incapable of swallowing, two drachms of the tincture of assafoetida may be administered clyster-wise in half a pint of gruel.

During the hysterick fit in a plethoric subject, the nervous system being in a state of super-irritation, officiousness, such as forcing open the hand and violently slapping them, dashing water over the face, filling the mouth with liquids, applying pungent salts to the nostrils, &c. tends to keep up the morbid irritation of the nerves, and of course to prolong the fit. If the patient be placed on a bed, and care taken that she does not hurt herself, she will much sooner recover than if attempts be made to hasten the termination of the fit.

Hysterick fits often arise from a disordered state of the digestive organs; and in all cases the nervous system is rendered irritable by it, and hence favouring the hysterick affection.

During the absence of the fit, it will therefore be proper to strengthen the stomach, and of course the nervous system, by the use of the following mixture:

Take of alcaline tincture of fumitory, six drachms; alcaline liquor of iron, two drachms; spirit of sal volatile, two drachms; infusion of buchu leaves, or camphorated mixture, seven ounces.

Two or three table-spoonsful to be taken three times a-day.

Costiveness should be obviated, by taking every morning a dose of the solution of the Epsom-Salt, as recommended page 9; cold water, applied to the head or forehead, every morning, by means of a napkin, will also prove very beneficial, by diminishing the irritability of the brain.

If the patient be of a full habit of body, or subject to head-ache from over-distension of the vessels of the brain, it will be advisable to take eight or ten ounces of blood from the arm, and to unload the intestines by the Aperient Mixture, No. 62, page 61. If the affection occur at the period of menstruation, which is generally the case, placing the feet in warm water of about 100 degrees, and the use of an aperient medicine, will supersede the necessity of bleeding.

In the 13th No. of the Gazette of Health, a case of hysterick passion is given, that resisted the usual remedies, in which the tincture of the Colchicum seeds was administered in the dose of 30 drops, in a glass of water, every eight hours, by Dr. Alderson of Norwich, with complete success.

A morbid irritation of the nervous system, which always accompanies this complaint, is very liable to be excited by the passions of the mind. The learned Sauvage observes,

nothing contributes to aggravate it more than indolence and vacancy of mind. Dr. Falconer therefore judiciously observes, some interesting pursuit, that will occupy the attention, should by all means be sought, and assiduously followed. Even fear itself, gradually introduced, and where no imminent danger is apprehended, has been efficacious in preventing this disorder. The displeasure of a parent, supposed likely to be incurred by the return of the hysterick fit, has contributed to prevent it; and it is noticed by this able writer, that, during the troubles in Scotland, in the years 1745 and 1746, this disease scarcely made its appearance. Hysterick fits are very apt to recur on the sight of people so affected. Dr. Falconer observes, that he once had an opportunity of seeing an instance of this kind at a public watering place:—a lady was seized with hysterick convulsions during the time of divine service; in less than a minute six persons were affected in a similar manner, some of whom had never before been subject to such attacks, but were, notwithstanding, violently agitated and convulsed, both in body and mind. But, though such instances as these show the propriety of prudent caution, yet *too great* a solicitude to avoid every thing likely to give uneasiness, especially if such solicitude be very apparent, is likely to do as much mischief as service. Nothing so much enhances the apprehension of danger, or so often causes those on whose account the care is taken to believe the hazard greater than it really is; and such circumstances frequently recurring, keep them perpetually in a state of painful irritability, which, in reality, constitutes the disorder. It would be much better to insure such persons *gradually* to the common occurrences of life, and to the occasional mention of such things, which, if not magnified by the relators, or dwelt on as meriting particular attention, will come in time to be disregarded, and their effects destroyed.

Instead of this, it is too usual with parents to foster the sensibility of their children, especially females, to an unnatural degree, by officious attention to remove every thing that can give the least interruption to pleasure, or even awaken the mind to its natural and necessary exertions. Affection contributes its share to enhance these complaints: an *unnatural* and *morbid sensibility* is often encouraged under the idea of *delicacy* and *tender feelings*; and even sickness itself is sometimes feigned, as being imagined, however falsely, a mask of a disposition of this kind. But if we take the trouble of examining human nature more accurately, we shall find that the *liberal* and *truly amiable virtues* of *humanity* and *benevolence* are much more frequently found in persons of a *steady* mind and temper, who have experienced variety of fortune, than in those who have passed their lives in a regular course of

luxurious indulgencies which always generate selfish and mean sentiments.

It is remarked by an eminent moralist, that men who have met with an *uniform* compliance with their will, are inclined to cruelty and severity. A mixture of adverse with prosperous fortune is necessary to inspire humanity and pity.

Remarks. — The morbid irritability of the nervous system in hysteria is of two kinds, viz. super-irritative and sub-irritative, *i. e.* attended with fulness and increased vigour of system, and with debility and depletion. In the former, the countenance is florid, and the body plump; and in the latter, the face is pale and flesh soft and flaccid. In the treatment of the super-irritative kind, remedies to reduce the system are necessary; and in the treatment of the sub-irritative, stimulants and tonics are proper. During the violence of a fit, little can be done in either case to terminate it. The object of practice is, therefore, to prevent its recurrence.

OF INCONTINENCE OF URINE.

This disease consists in an involuntary evacuation of urine.

CAUSES. — It is generally the consequence of weakness or palsy of the muscle of the bladder; it is frequently the consequence of excessive irritability of the bladder or prostate gland, from the action of gravel, ulceration, or organic disease from injury of parts in the operation for extracting the stone; from pressure of the womb in a state of pregnancy; and sometimes in women, from a communication between the bladder and vagina, from ulceration after difficult labour.

TREATMENT. — When it arises from the want of tone or power in the muscular fibres of the bladder, a blister should be applied over the lowermost part of the back-bone, and when the surface has healed, the irritation should be kept up by a stimulant, as the Euphorbium plaster. The Tonic Mixture, No. 77, page 65, should be taken as there directed, with ten drops of tincture of cantharides in each dose, and half a grain of calomel made into a pill, with a little conserve of roses, every other night, in the manner as directed for indigestion; which, with cold-bathing, electricity, and a generous diet, will probably succeed in recovering the tone of the bladder. — When it is occasioned by stone or gravel, it requires the same treatment as recommended for the latter disease. When it is the consequence of morbid irritation of the bladder, prostate gland, or disease in the urethra, the tincture of Buchu leaves in the dose of two tea-spoonsful, two or three times a-day, in a large wine-glassful of the decoction of Marshmallow Root, is a very valuable remedy. The diet should be free from stimulant, as spices, wine or spirits. When the effect of injury sus-

tained in the operation for the stone, great relief is afforded in males by the pressure of the instrument called Jugum, and in females by the globular Pessary. When it is produced by an impregnated womb, an horizontal position should be observed as much as possible. When a communication exists between the bladder and vagina, it will neither admit of cure nor much relief. This distressing case is generally produced by inflammation, and consequent ulceration, succeeding difficult parturition. It is often attributed to palsy, or loss of tone in the muscular fibres of the bladder, and, as such, I have frequently known it treated by routine physicians, who have been considered eminent by the public, to the great injury of the patient; practitioners should therefore satisfy their minds as to the *real cause* of the disease, before they prescribe *active* remedies for its cure.

Remarks. — It is of importance in this disease to ascertain, whether it be the consequence of debility of the sphinctre muscle of the bladder, or of irritability, as the remedies applicable in the one will prove injurious in the other.

OF INDIGESTION.

Under the head of Introduction to the First Part, page 161, the important office of the stomach is particularly noticed. The animal, as well as the vegetable kingdom, derives its nourishment or support from the earth. From the vegetable, branches spread into the earth, termed roots, and the nourishment they absorb is conveyed to every part of the trunk; which, of course, will flourish according to the richness of the soil. In the animal, the intestines answer the same purposes as the roots of a vegetable. He receives his food by the mouth, which, after being divided by the teeth, is conveyed to the stomach to be assimilated, or converted into animal manure. After it has undergone this process, it passes through the intestines, that the chyle, formed in the duodenum, may be taken up by the absorbent vessels, and by them conveyed to the mass of blood, to be distributed over the body for its nourishment. On the state of the stomach and quality of the aliment, not only the health of the body depends, but in a great measure the successful treatment of most of the diseases that assail us, particularly those of a chronic kind. It is also of great consequence that the refuse of the food and foecal secretion of the intestines should be duly evacuated: if the fœces be allowed to remain in the intestines more than twenty-four hours, decomposition will take place, and a quantity of gas be disengaged, which, by distending the canal,

is often productive of great irritation and mischief. There exists a great sympathy between the brain and stomach, so that irritation in the latter, or indigestion, by disturbing the brain, is often the means of bringing constitutional diseases into action; and in many cases of indisposition, in consequence of this great sympathy, it is often difficult to determine whether the brain or the stomach were primarily affected. When the stomach does not duly perform its office, a very powerful acid is often formed, which counteracts the effects of some remedies, as the soda or kali, when administered in stone and gravel; while to other articles a degree of activity is given, which may render them dangerous, as mercury and antimony. Hence it is of the greatest importance, in many diseases, to prepare the stomach for the exhibition of such remedies.

Of such importance is the proper digestion of food to the general health of the system, that Mr. Abernethy attributes all the chronic diseases that occur in the human frame to imperfect digestion, and in their treatment he asserts that it is only necessary to pay attention to the state of the digestive organs. This author's system and his advice, with respect to medicine, diet, exercise, &c. are detailed in the fifth and sixth numbers of the *Monthly Gazette of Health*.

SYMPTOMS. — A loss of appetite; disengagement of air, producing distension of stomach and bowels, often attended with eructations; heartburn; squeamishness; sometimes acid vomiting; the body at length, not being properly nourished, becomes emaciated and much debilitated, sometimes attended with nervous irritability, and in elderly people with collection of mucus in the stomach and upper part of the gullet, and sometimes in the palate.

CAUSES. — The principal cause of indigestion is increased irritation or sensibility of the stomach; the consequence of the too free use of spirituous liquors *, savoury dishes, over-distension of the stomach, too great a quantity of warm liquors (as tea and coffee), unripe fruit, an indolent and sedentary life, close application or anxiety of the mind, or whatever may tend to disorder the nervous system. (See **HEARTBURN.**)

* Spirituous liquors disorder the stomach by their chemical action on the internal coat, and by disturbing the brain: but in some subjects, where they do not produce the latter effect, an excessive use of them is not followed by symptoms of indigestion. Want of appetite and bad digestion are, however, generally the common complaints of drunkards; as the frequent use of spirits, by injuring the coats of the stomach, must sooner or later occasion a vitiated secretion of the gastric juice.

Indigestion is sometimes the effect of diminished irritation, as in cases of palsy, and general debility.

It has been the fashion of late to attribute every symptom of indigestion to the secretion of bile, some complaining of a deficiency, and others of redundancy of bile. The bile has nothing to do with the digestion of the food in the stomach; for the duct which conveys it from the liver terminates in the intestine. See **BILIOUS COMPLAINTS**, and the office of the liver, pages 209 and 163.

The prevalence of indigestion in this country may be attributed to inactive life, to error of diet, and the excessive use of spirituous and vinous liquors. With respect to our natural food, the formation of the teeth, as well as intestines, prove that we are destined to live both on animal and vegetable aliment; and we find the flesh of animals, with a proportionate quantity of vegetables, to agree best with the stomach of persons in health, and to afford the most substantial nourishment to the body.* It is not, however, in the quality, but the *quantity* of food, in which man generally errs. No greater quantity should be taken than is required by nature to supply the waste the body has sustained, which must depend on the degree of exercise or fatigue to which it has been subjected, and not for the gratification of *artificial* appetites, excited by the use of bitters, spirituous liquors, or savoury dishes. That nothing strengthens the digestive organs more than exercise, is evinced by the great appetite and good digestion of people who are compelled by necessity to earn their bread by their daily labour.† The principal cause among the high class of society is, the practice of drinking a quantity of wine during and after dinner. The Port and Sherry wines consumed in this country are mixed with a quantity of strong brandy, to render them fit for keeping during the voyage; so that, instead of being pure wine, they are in reality a proof spirit. This spirit is extremely pernicious to animal life, and its repeated use will assuredly, sooner or later, destroy the most robust constitution; for after the stomach has been accustomed to its stimulus for some time, it requires a repetition to keep up its effects; and as life advances, so an additional quantity becomes necessary; a degree of sub-irritation

* What is the exact proportion of animal and vegetable nourishment which is most conducive to health, cannot, perhaps, be fully ascertained; but we may admit it as a general rule, that two-thirds or three-fourths of vegetables to one-third or fourth of animal food, is the most proper.

† Dissection demonstrates, that the coats of the stomach of a labouring man are very considerably thicker and stronger than those of a sedentary person.

of the whole system is thus produced, which is intolerable when the system is not under the cheering influence of the spirituous poison ; derangement in the structure of the stomach takes place ; and the foundation of the most distressing complaints that can possibly assail the human frame is laid before the meridian of * life ! The great numbers that die of diseased stomachs and apoplexy †, brought on by the abuse of spirits, is a melancholy proof of this assertion. Independent of superabundant alcohol in wine, I have also detected a quantity of lead. Indeed, this practice is become so prevalent, on account of the pleasant astringency it imparts to it, that the author has thought it incumbent to give directions for making a test for its detection. ‡ (See CREAM of TARTAR.) Medical practitioners are frequently questioned respecting the qualities of different foreign and domestic wines. The question may be answered in a few words.—The British wines, in consequence of containing much sugary matter, in consequence of the climate being unfavourable for the vinous

* Ardent spirit hardens and contracts the animal fibre : hence the nervous energy of different organs is gradually destroyed, and the vessels for conveying fluids are lessened in their diameter, and ultimately obstructed. Morbid structure of the pylorus and liver especially, are frequent concomitants of habitual inebriety. But the intestines, the pancreas, spleen, and perhaps the kidneys, are also liable to the same affection ; which, after a certain time, is incurable, and often speedily fatal. The dram and purl drinkers may sooner experience these evils than other drunkards ; but even the guzzler of small beer has no security against them ; nay, so sure and uniform is this effect of producing diseased bowels by fermented liquors, that in distilleries and breweries where hogs and poultry are fed on the sediments of barrels, their livers and other viscera are diseased like those of the human body ; and were these animals not killed at a certain period, their flesh would be unfit to eat, and their bodies become emaciated. Several well-authenticated cases of spontaneous combustion of the human body, in consequence of the long immoderate use of spirituous liquors, have been published in England and on the Continent, by gentlemen of unquestionable veracity. The Transactions of the Royal Society of London present a remarkable instance of this species of combustion, attested by a great number of eye-witnesses, in the parish of St. Clement, Ipswich. The extraordinary occurrence became the subject of many learned discussions ; the particulars of which, with several other similar cases, are to be found in Dr. Trotter's late Essay on Drunkenness.

† The use of spirituous liquors, by producing determination of blood to the brain, is, no doubt, a principal cause of the frequency of apoplexy and sudden deaths in this country.

‡ Lead thus swallowed not only injures the stomach, but is often the cause of the most obstinate and dangerous species of colic, which frequently terminates in inflammation of the intestines. The author has found that the most genuine wines are sold by the Italian merchants who import it. He has been in the habit of recommending his patients to procure the wine and spirits they may require from the Italian warehouse of Messrs. Pressey and Company, of Oxford-street, in consequence of having always found the articles sold by them to be perfectly free from adulteration.

fermentation, are very liable to become acid in the stomach. The foreign white wines are better fermented, but possess no advantage over diluted brandy; in fact, they may be considered a diluted spirit with different flavours. Port wine is also a diluted spirit, with the addition of an astringent matter, and is therefore stomachic; but, on account of the quantity of spirit it contains is a very bad one, except in cases of disease that require the use of a spirit. Claret wine contains a less proportion of spirit, and also possesses astringency, and is perhaps the most salubrious wine imported into this country; but, on account of its weakness, it is, like the British wines, very liable to become acid in the stomach. This disposition is, however, in some degree counteracted by its astringent quality. Some time ago I distilled a quantity of each of the different foreign wines commonly drank in this country, to ascertain the proportion of ardent spirit each contains, the result of which I have published in the seventh and eighth numbers of the *Monthly Gazette of Health*. In the latter number I have also specified the quantity of ardent spirit I obtained from different ales, porter, perry, and cyder. From a bottle of good old Port wine I obtained no less a quantity than nearly half a pint of brandy!!

Three kinds of appetites may be observed, viz. the *natural appetite*, which is equally stimulated and satisfied with the most simple dish as with the most palatable, the *artificial appetite*, or that excited by stomachic elixirs, spirits, pickles, digestive salts, &c. and which remains only as long as the operation of these stimulants continues; and the *habitual appetite*, or that by which we accustom ourselves to take meals at certain hours, and frequently without any appetite. The true and healthy appetite alone can ascertain the quantity of aliment proper for the individual. If, in that state, we no longer relish a common dish, it may be regarded a certain criterion of its disagreeing with the digestive organs. If after dinner, we feel ourselves as cheerful as before it, we may be assured we have taken a proper meal: for, if the proper measure be exceeded, torpor and relaxation will be the necessary consequences; the faculty of digestion will be impaired, and a variety of complaints gradually induced.

TREATMENT. — In all cases of indigestion we must determine whether the stomach be *primarily* or *sympathetically* affected, whether it be the consequence of *increased* or diminished sensibility of the organ. Morbid irritation of the brain, and of course of the stomach (for the stomach derives its power of action from the brain,) is often occasioned by an increased determination of blood to the head, or from plenitude of the system of blood-vessels; and this state of the circulation is not unfrequently attended with a sense of general debility. In this case

the pulse is full and oppressed, the patient is heated, and his mind confused by wine: he is often giddy, and disposed to sleep after dinner; and stimulants, as brandy, ginger, and pepper, are apt to produce a painful sense of heat in the stomach. When indigestion is accompanied with this state of system, the loss of blood, and the Epsom salt (as directed page 8), and the application of cold water to the head every morning *, are the best remedies. When the system is not overloaded with blood, the treatment should commence with the Emetic Powder, No. 88; after which the Stomachic Mixture, No. 61, page 61, or the Tonic Mixture, No. 77, page 65, may be taken with advantage. Two drachms of the Epsom salt may likewise be taken every other morning, to increase the peristaltic motion of the intestines, and remove redundant slime. If acidity prevail in the stomach, two drachms of Prepared Natron, No. 60, may be added to either of the mixtures recommended above. For debilitated, gouty, or languid constitutions, the Compound Tincture of Ginger and Camomile is an excellent remedy.

Since the last edition of this work was published, the fumitory has been much recommended in cases of indigestion arising from irritability of the stomach, and especially when the liver does not perform its office. The best preparation is the alkaline tincture, which may be taken from two to three tea-spoonsful two or three times a day, in a glass of water. This article acts as beneficially on the liver as mercury, and has the great advantage of being incapable of doing mischief.

Quassia-root has been much recommended in cases of indigestion; but from its poisonous effects on insects and small animals, which it speedily destroys, the author cannot consider it a safe remedy.

The extract of camomile † was a very favourite stomachic medicine with the late Dr. Cam, an eminent physician of Hereford: it may be taken in the following manner: —

* I have known this remedy to prove very beneficial in the indigestion of nervous subjects, when attended with head-ache, increased heat of body, and restlessness.

† It is worthy of remark, that the long use of bitter medicines has been found ultimately to impair the digestive organs; and it is a well-established fact, that gouty people, who have been in the habit of taking bitter cordials, generally die suddenly. The quantity of quassia, or other injurious bitters, employed by some brewers in making beer and porter, has, no doubt, been a principal cause of the frequency of stomach and bowel complaints in the metropolis. The narcotics, that likewise enter the composition of table beer and porter, as opium, coccus indicus, (very favourite ingredients with some public brewers of the present day,) must not only do irreparable injury to the stomach and bowels, but, from their continued use, prove very hurtful to the constitution.

Take of the extract of camomile, one drachm; purified natron, one drachm; tincture of ginger, two drachms; mint-water, six ounces. — Mix. Three table-spoonsful to be taken two or three times a-day.

If the form of a pill be preferred by the patient, the following may be substituted for the preceding mixture: —

Take of extract of camomile, one drachm; dried natron, half ditto; powdered rhubarb, one scruple; oil of caraway-seeds, ten drops; syrup of ginger, sufficient to form twenty-four pills. Two to be taken two or three times a-day.

When the countenance is pale, and the extremities cold, and particularly when the legs swell in the evening, a scruple of the precipitate of iron may be added to the above form.

The compound tincture of ginger and camomile flowers is also a very excellent remedy for indigestion, when attended with much flatulence. (See No. 7, page 12.) If there be a deficiency of the biliary secretion, which may be known by the pale appearance of the faeces, a grain of prepared calomel may also be taken every other night, for about ten days, or a fortnight. The decoction of sarsaparilla-root is much recommended by Mr. Abernethy to accompany the use of small doses of mercury, in such cases; but it is not so efficacious as the Stomachic Mixture, No. 61, or the tincture of ginger and camomile.

Till the stomach is restored to a healthy state by these means, such a diet should be adopted as will coincide with the remedies, and not aggravate the symptoms. Green vegetables should be taken very sparingly. The diet should consist principally of animal food, which, when well masticated, will digest better than vegetables *: and, even if spirituous liquors were the chief agents in producing the disease, they should not now be entirely abandoned, as wine and malt liquor will soon become acid. A little dilute spirit will prove beneficial, by checking fermentation, and keeping up the action of the stomach; a little brandy,

* The flesh of young animals is most easy of digestion; but the quality of meat, in this respect, is much affected by the mode of cooking it. By roasting, the fibres are rendered hard of digestion; and by boiling, the juice and more nourishing qualities are extracted. The best method of cooking meat appears to be by steam, which renders the fibres more tender, and, at the same time, does not rob it of its nourishment, which resides in its juices or gluten. A most convenient apparatus for cooking meat and vegetables by steam, has lately been invented by Mr. Bill, of No. 75, Newman-street, Oxford-road, which is also attended with a very considerable saving in the expense of fuel and labour.

diluted with water, may therefore be allowed. If the patient be subject to gout, ginger may likewise be taken in the quantity directed for gout. The article taken for breakfast should contain an aromatic quality, to promote its digestion; for this purpose, the best that can be adopted is the nut of the sassafras, which not only possesses a grateful aromatic property, but is also very nourishing. (See SASSAFRAS NUT, p. 94.) For the want of a gentle aromatic, the usual breakfast of tea or coffee disorders the stomach by relaxing it, and by producing acidity and flatulence. To this treatment, exercise will prove a very powerful auxiliary.

In very obstinate cases of indigestion attended with cramp in the stomach, a frequent disposition to looseness and flatulence, the following mixture will prove an efficacious remedy, particularly in elderly people:—

Take of extract of rhatany root, two drachms; aromatic tincture of ditto, one ounce; prepared natron, two drachms; pure water, ten ounces. Two or three table-spoonsful to be taken three times a-day.

The stomach receiving its power of action from the brain, the application of cold water to the head, as directed for headache, by allaying morbid irritability of the brain, has been very beneficial in cases of indigestion, particularly when attended with pains in the head, and general nervousness. (See HEADACHE.)

When the stomach is evidently disturbed by over-distension of the vessels of the head, it will not only be necessary to keep the bowels open, but to observe a low diet, and to increase the circulation of the blood in the extremities, by the use of flannel socks, flesh-brush, &c.; and, if attended with pain in the head, stupor, or giddiness, a blister should be applied to the nape of the neck. Such patients will receive great benefit by confining their beverage to pure water.

If the patient be subject to diarrhoea or purging, flannel should be worn next the skin.

If the remedies above recommended do not succeed in removing the disease, we may suspect that some organic mischief exists either in the coats of the stomach or in the organs connected with it, as the pancreas, liver, &c. with the view of removing which, a grain of calomel may be administered every night for a week or a fortnight, according to its effects on the constitution. The Euphorbium plaster should be applied over the region of the stomach, and a wine-glassful of the following mixture taken three times a day:—

Take of lime-water, seven ounces; alkaline tincture of fumitory, six drachms; tincture of cardamom seeds, half an ounce. — Mix.

If the bowels be in a costive state, the Cheltenham salt may be taken, so as to procure one proper evacuation every day. Spirituous liquors and high-seasoned dishes, should be avoided.

PREVENTION. — It must appear evident, from the foregoing observations on the causes of this disease, that the most effectual prevention consists in, 1st. properly exercising the body; 2dly, proportioning the quantity of food to the degree of exercise*; and, 3dly, relinquishing the use of spirituous or vinous liquors, tea, and coffee. If sufficient bodily exertions cannot be taken, and an artificial appetite must be produced by stimulating the digestive organs, such stimulants should be employed as will not injure the coats of the stomach, nor disturb the brain. Of this class, ginger, Cayenne pepper, and well-seasoned pickles, are the most innocent and effectual. Of wines, sound Madeira and Port are the best.

In the Gazette of Health a composition of the buds of red roses, rosemary, sage, &c. is much recommended as a substitute for tea or coffee, in cases of indigestion; and in many incipient complaints it has proved very beneficial. It is certainly a powerful auxiliary to medicine, and, as a preventive of indigestion, after the cause has been removed, is very efficacious. †

Those who are in the habit of drinking a quantity of spirit, or spirituous wines, will receive great relief by taking water at meals ‡, instead of wine or malt liquors. I have known cases

* It is not an easy matter to ascertain the exact quantity of food proper for every age, sex, and constitution; the best rule is to avoid extremes. Three meals in a day are as many as nature requires, and certainly as much as the stomach can *properly* digest: dinner ought to form the chief of these. Hearty suppers, particularly of meat, in which some people indulge themselves, previously to their retiring to rest, are highly prejudicial to health; hence the old adage,

“ Great suppers a very great evil we call;
That sleep may be sound, let your supper be small.”

† This composition, which is much cheaper than tea or coffee, is sold at 170, Piccadilly.

‡ During a meal, water is certainly the best beverage. The custom of drinking fermented liquors, and particularly wine, during dinner, is a very pernicious one. The idea that they assist digestion, is false; for those who are acquainted with chemistry, know that food is hardened, and rendered less digestible by them; and the stimulus which wine gives to the stomach is not necessary, excepting to those who have exhausted the excitability of that organ by excessive use of strong liquors. If food want diluting, water is the best diluent, and will prevent the rising, as it is called, of strong food, more effectually than wine or spirits.

of indigestion from the use of spirits, attended with symptoms indicative of organic disease of the stomach, cured by drinking at meal times nothing but distilled water, and gradually diminishing the quantity of wine, till it was reduced from eight glasses to one in a day. (See DIET, DRINK, and EXERCISE.)

Remarks. — From the preceding observations, it will appear, that indigestion arises from a variety of causes; that it is equally a disease of plenitude and excess of health, as well of debility and depletion; that the principal cause, in this country, is inflammatory excitement of the stomach, in consequence of being over-stimulated by wine and high-seasoned dishes; that, when fulness of system prevails, bleeding and aperient medicines are the best remedies; that, when general debility of the system is an attendant, tonic medicines are necessary (see HEARTBURN); that, if the disease proves obstinate, some organic mischief may be suspected, either of the coats of the stomach, pancreas, liver, or intestines; in which case mercury is necessary, and the application of the euphorbium plaster; that, in all cases, particular attention must be paid to diet and exercise; that water, during meals, is the best beverage; and that meat under-cooked is the most easy of digestion, as well as being more nutritious.

OF INFLAMMATORY FEVER.

SYMPTOMS. — Inflammatory fever is distinguished by an increased heat of body, without any material remission, attended with a throbbing, generally pungent, but sometimes dull and heavy, pain in the head; the face appearing red and bloated; the pulse strong, full, and frequent; great thirst; sense of general lassitude; the urine high coloured; the tongue is generally covered with a white fur; the brain much disordered, and rest disturbed.

CAUSES. — Whatever disturbs the brain, or checks the secretion of the skin, will, in plethoric habits, or irritable subjects, produce inflammatory fever.

TREATMENT. — In the treatment of this fever our object is to allay the increased excitement of the brain, and to diminish the quantity of blood: the former is best effected by the application of cold water to the head, and the latter by abstraction of blood from a vein. As there exists great sympathy between the brain, stomach, and intestines, it will also be proper to unload the latter. For this purpose, the Aperient Mixture, No. 62, page 61, should be administered. If the stomach be much disordered, the Emetic Powder, No. 11, page 67, should precede the use of the Aperient Mixture. If, after the operation of these remedies, the skin should continue dry, perspiration should be excited by the Antimonial Powder, No. 37, page 44; and if this should

fail, the body should be placed in a warm bath of about 96 degrees; the Saline Mixture, with the wine of the colchicum seeds, or the tincture of foxglove, may be taken, (see No. 78, page 61,) and the perspiration kept up by small doses of ten or twenty drops of tartarised Antimony Wine, No. 16, with warm diluent liquids, as barley-water, common whey, &c. and the body rendered laxative by means of the Epsom or Rochelle salt, as directed, No. 2, page 8.

In all fevers, but particularly the inflammatory, it is of great consequence to keep the skin moist; for by the evaporation of perspirable matter superabundant heat is conducted from the system. A dry skin, on the contrary, by favouring the accumulation of heat, never fails to aggravate all the symptoms. If there be considerable determination of blood to the head, the application of leeches to the temples, a blister to the nape of the neck, and the immersion of the feet in warm water, should not be neglected; and if the patient complain of stitches in the chest and difficulty of breathing, the loss of blood should be repeated, and a blister applied over the breast-bone. If, when the fever has nearly subsided, morbid irritation of the brain exist, preventing sleep, ten or twelve drops of laudanum, No. 31, may be given in a dose of the Saline Mixture. The diet should be principally arrow-root jelly, barley-water, gruel or tapioca, without spices or wine, till the inflammatory symptoms have considerably abated.

Washing the body with cold water, by means of a sponge, was much recommended by the late Dr. Currie, of Liverpool, and has certainly been attended with very beneficial effects, by diminishing nervous excitement, and conducting heat from the body; but the constant application of it to the head with a napkin will, after the first sponging, act equally beneficially.

When the fever has entirely subsided, the stomach should be invigorated, in order that the system may be properly nourished and restored to health, by the following mixture: —

Take of essential salt of bark, No. 24, one drachm; dissolve in half a pint of mint-water, and add sweet spirit of nitre, No. 15, 3 drachms. Three tablespoonsful to be taken four times a-day.

If the salt of bark cannot be procured, half a pint of the decoction (see Peruvian bark, No. 50.) may be substituted for it and the mint-water.

OF INFLAMMATION OF THE BRAIN.

People in the vigour of life, the passionate, the studious, and such as are predisposed to apoplexy, are most subject to inflammation of the brain.

SYMPTOMS. — Inflammation of the brain commences with rigours, tremor of the extremities, a sense of lassitude and stupor. The veins of the head soon become distended, and the arteries beat with increased force: the eyes are often steadfastly fixed, fierce, and sometimes sparkle; the voice shrill, and language incoherent; a proneness to anger, and at times a determined resolution to walk about the room: the pulse is generally languid, and the extremities cold; on dosing, he generally talks or mutters a great deal, with a chattering of the teeth, trembling of the hands, and almost constant motion of the fingers, which seem employed to pick or gather something, and often to gather the nap of the bed-clothes. After the *fourth* day, the delirium is more continual and furious, with watching, convulsions, and hiccup; the faeces pale, and at length, with the urine, are discharged involuntarily; the pupils of the eyes are dilated, and other symptoms of approaching dissolution ensue; or critical sweats and looseness come on, or bleeding at the nose, or piles, which are of a more propitious import.

CAUSES. — Excessive drinking, violent passions of the mind, exposure of the head to the sun, long watching, close application of the mind, suppression of natural evacuations, concussions of the brain, and whatever may increase the afflux of blood into the head.

TREATMENT. — The most powerful remedies should be employed, on the *first attack* of this disease, to unload the vessels of the head: for this purpose as much blood should be extracted as the system will bear, either by opening one or both the temporal arteries, or from the nape of the neck; by the operation termed *cupping*; or from the jugular vein, or the arm, by a *large* orifice, twelve or sixteen ounces of blood, or till the patient faints, which will prove of much greater advantage than double the quantity extracted from a small vessel, or by leeches. Cold water, or vinegar and water, should be applied to the head by means of napkins or folded linen, and removed when they become dry or warm. The bowels should be well emptied by the *Aperient Mixture*, No. 62, and the *clyster*, No. 97. With the view of producing a diversion in the circulation, blisters should be applied to the feet, the thighs, and arms; or the *mustard poultice*, No. 111, to the feet. The room should be kept dark and quiet, and the patient supported with barley-water, acidulated with lemon-juice. Such is the delicate structure of the seat of the inflammation, that no time should be lost in the employment of these means, which from the feeble state of the pulse, are too often neglected by timid or inexperienced practitioners, till the brain has sustained irreparable mischief.

The Saline Mixture may likewise be given every three or four hours, as directed, No. 78, page 65, to which six or eight drops of the Prussic acid, or one drachm of the tincture of fox-glove, may be added; but, in inflammatory attacks of a part of such delicate structure, and so essential to life as the brain, the advice of the most skilful and experienced practitioner in the neighbourhood should be resorted to in the earliest stage of the attack.*

The state of the mind should, in this disease, be particularly attended to. The medical writers of antiquity have, with regard to this, given many very judicious directions. Aretæus remarks several circumstances, apparently minute, but, in reality, very important. Thus he advises, "quiet and calmness both to the sick person and his attendants, and that he should be placed in a chamber of moderate size, with the walls smooth, uniform, and regular, without projections, and not ornamented with variety of colours or paintings, as they are apt to distract the mind, and impose on the patient for realities. He orders even the bed-clothes to be smooth and of a regular surface, that the patient may not be induced to fatigue himself by picking the irregularities. He also directs that some of his most intimate friends may have access to him, and, by amusing discourse and mild expressions, endeavour to pacify and compose his perturbation of mind. He recommends likewise, a compliance, as far as possible, with all the desires of the patient, especially if he be prone to anger and violence. If light be offensive, or seem to aggravate the disorder, by suggesting objects to the imagination, he orders the chamber to be kept dark; but if darkness, from the uncertain state of mind it induces, cause dread and horror, light is directed to be let in." Cœlius Aurelianus, a physician of great celebrity in his time, agrees in most of these points with Aretæus, to which he adds some useful cautions of his own. Thus he directs: "the light to be mild and gentle, as of a lamp, or that of the day, let in through a small aperture, and directed principally to the face of the patient, as an object to fix his attention, and thus prevent the mind wandering in uncertain thoughts and ideas; — a precaution frequently useful in modern practice, and known to be of the greatest efficacy in calming delirium when not very violent. He also recommends that

* Routine physicians, whose practice is governed by the state of the pulse, and the effect more than the cause of disease, too often confound this affection with putrid fever; and, instead of the depleting plan recommended above, treat the phrenetic symptoms as delirium from debility. The pulse, observes the learned Celsus, *res fallacissima est*; and in this disease it is particularly so.

such persons should not be admitted to him, to whom he bore any aversion or dislike in his natural state of health; and that those people should be introduced whom he had been accustomed to respect and reverence; but that the visits of these should be only at intervals, in order that the influence of the mind might not be destroyed by habit and familiarity." All these precautions are extremely proper, being founded on reason and experience. These directions, however, more apply to the delirium attendant on low or irritative fever, than *active* inflammation of the brain; as in the latter instance the patient is for the most part in a state of insensibility.

INFLAMMATION OF THE EYE.

SYMPTOMS. — Pain, redness, heat, and tension of the ball of the eye, or its membranes, accompanied with intolerance of light, and generally with an effusion of hot acrid tears.

CAUSES. — External injury, excessive light, minute examinations, repeated intoxication *, intense heat, and obstructed perspiration, are the most frequent causes of this disease.

TREATMENT. — The *repeated* application of leeches to the eye-lids or temples, blisters to the nape of the neck, the occasional use of the Aperient Mixture, No. 62, page 61, the constant application of the Eye-water, No. 100, (by means of folded old linen,) the Saline Mixture, No. 78, a dark room, and low diet, are all indispensably necessary in the treatment of this disease, and should be *speedily* employed, to prevent mischief, as opacity of the cornea, &c. † If the inflammation continue after the employment of these remedies, the blister should be kept open by dressings of the savin ointment: and the aperient mixture, application of leeches, &c. repeated; and if the patient be of a plethoric habit of body, or suffer from a determination of blood to the brain, producing pulsating or beating pain in the head, or giddiness, the extraction of blood from the jugular vein or arm will also be proper. When the disease occurs periodically, or in a scrofulous habit, the Mixture, No. 75, page 64, should be substituted for the saline mixture, after due evacu-

* Inflammation, or redness of the eyes, is a distinguishing badge of a drunkard, remarked by the vulgar, as if to point him out by the finger of scorn.—"Who hath woe? who hath sorrow? who hath contentions? who hath babbling? who hath wounds without cause? who hath *redness of eyes?*" says Solomon; "they that tarry long at the wine; they that go to seek mixed wine."

† This effusion, terminating in adhesions of the layers, of which the transparent cornea consists, produces opacity, and is a very common cause of blindness.

ations by the means above suggested. In case of much pain, six or eight drops of a strong solution of opium in water (filtered) may be dropped within the eye-lids at bed-time, or twice a-day, which will not only allay the pain, but often succeed in speedily dispersing the inflammation, particularly after the operation of the aperient medicine, &c. The electric aura applied to the eyes, is much recommended by Mr. Samuel Cam, an ingenious surgeon of Hereford, in whose practice, at the General Infirmary of that county, it has proved very successful. If the inflammation arise from venereal taint, the internal use of mercury will be absolutely necessary.

The fever diet, described page 132, should be strictly observed.

When inflammation of the eyes occurs in subjects whose absorbtive system is naturally delicate (termed the scrofulous habit, or in gouty subjects), it is generally of a very obstinate nature; and after the system is quieted by the foregoing means, will likewise require the treatment recommended for king's evil to complete the cure, particularly the prepared natron, the alterative pills, and compound decoction of sarsaparilla. (See KING'S EVIL and GOUT.)

Chronic inflammation of the edges of the eye-lids will also require the same constitutional remedies, which, with the use of the following ointment, will effect a cure:—

Take of prepared calomel, one drachm; fresh spermaceti ointment, half an ounce.—Mix.

To be applied to the edges of the eye-lids, and particularly within the corners of the eyes, every night and morning, by means of a fine camel-hair pencil. In such cases, an issue in the neck or arm, and the Scrofulous Mixture, No. 75, page 64, will prevent a recurrence.

Infants born in winter are very subject to sore eyes, from the action of the cold air on them. All that is requisite in such cases, is to keep the head warm, and wash the eyes with fresh rose-water. If the inflammation should increase, it will be proper to add two grains of white vitriol to four ounces of rose or elder-flower water, which should be dropped within the eye-lids once or twice a-day, and often applied externally by means of some fine lint; the bowels should likewise be emptied by a little magnesia and rhubarb, in mint-water. When the symptoms run high, the application of leeches to the eye-lids and a blister to the nape of the neck, or behind the ears, will be necessary.

Infants are sometimes attacked with sore eyes a few days after birth, attended with a discharge of thick matter, which, if not skilfully treated, may terminate in blindness; and, as it is very

rapid in its progress, the advice of an experienced surgeon should be taken on its first appearance. In this case, the bowels should be emptied twice or three times a week, by one or two grains of calomel, with or without rhubarb, as the state of the bowels may indicate; and folds of fine old linen frequently immersed in the following lotion, should be kept constantly to the eyes, and a little poured between the eye-lids twice or three times a day:—

Take of acetate of zinc, and acetate of ceruse, of each four grains; distilled water, six ounces.—Mix.

For this species of inflammation of the eyes, a respectable surgeon recommends, in the Monthly Gazette of Health, a few drops of the following solution to be dropped within the eye-lids every night and morning:—

Take of sulphate of copper, one grain; distilled water, four ounces.

In some cases he increased the quantity of vitriolated copper to three grains.

PREVENTION.—People subject to inflammatory attacks of the eyes or eye-lids, should pay particular attention to the state of the digestive organs, and on any symptom of indigestion, or determination of blood to the head, should take the Aperient Pills, No. 46, page 49, or a solution of the Epsom Salt, as advised, No. 2, page 8, especially in the commencement of spring and autumn. The eyes should likewise be washed every morning with *cold* water, to which a little brandy may be added on the appearance of redness or fresh irritation; but the most effectual prevention is, an issue in the arm or nape of the neck.

High-seasoned dishes, strong wines, and spirituous liquors, should be avoided.

OF INFLAMMATION OF THE INTESTINES.

SYMPTOMS.—This disease is distinguished by a fixed pain in the belly, which is increased by pressure, attended with the usual symptoms of fever, costiveness, and vomiting. The pain is felt in different parts of the bowels, according to the seat of the inflammation, and very often it spreads over the whole belly, and is felt more especially about the navel. The pulse is quick, hard, and small: the urine high-coloured; the abdominal muscles frequently contracted.

CAUSES.—It may be occasioned by external contusion; by acrids of various kinds taken into the stomach; frequently by very cold drink, swallowed when the body is warm; or cold applied to the lower extremities, or belly itself: it is sometimes produced by costiveness; and often supervenes in the progress

of colic; or is also occasioned by the strangulation of a protruded portion of the intestines in a rupture, or what is commonly termed a broken belly.

TREATMENT.—Copious bleeding, the frequent exhibition of an emollient clyster of starch, fomentations, the warm bath, a large blister on the belly, small anodyne clysters (see No. 96, page 69,) occasionally injected, are the most effectual remedies in the first stage of this violent disease. If vomiting be an attendant, great care must be taken not to aggravate it either by the *quantity* or *quality* of any thing thrown into the stomach.

Such is the nature of this complaint that we cannot be too cautious either in administering medicines or diluents by the mouth; for the capacity of the intestinal canal is often so diminished, as to be sometimes nearly obliterated or shut up; and a quantity of any kind of liquid or aliment, however *simple* in itself, must, by *distending* the intestines, or being forced against the obstruction, necessarily increase the irritation and mischief. The propriety of administering aperient medicines is to be questioned, as the irritation they produce may aggravate the inflammation; the *frequent* use of emollient clysters will supersede their necessity, and at the same time act as a fomentation to the parts. Almond emulsion, with a little gum arabic dissolved in it, is the only medicine that can be admitted with safety. Laudanum may, in some cases, be employed with great advantage; but in others, it may prove as injurious:—clysterwise it is generally more efficacious than when given by the mouth. When the pain remits, and the *violence* of the symptoms abates, *mild* diluents may be allowed, as chicken broth, linseed tea &c.; and if such liquors be retained without aggravating the symptoms, a little fresh castor oil may be given every three or four hours till it procure a passage.

If that state of the intestine be suspected to exist, technically termed volvulus or intussusception—that is, a preternatural *ingress* of one portion of the intestine into the other, or a reduplicature of the intestine—quicksilver, in the quantity of an ounce, should be given; and, as its effects are entirely mechanical, the patient should be put in an erect posture (that it may the better press on the inverted part), and kept in that state till it has passed the stricture, which will require but a few minutes. He may then be replaced in bed, when the quicksilver will more easily pass through the intestinal canal.

In a late treatise on Inflammation of the Bowels, by Dr. E. Peart, calomel and opium are ordered in the first and every stage of this disease. The calomel to be continued at short intervals, and opium when requisite, till the disease is removed, even although forty, sixty, or more than one hundred grains of

calomel, may in the whole be found necessary. The author has lately witnessed, in two desperate cases, the salutary effects of this practice.

When the inflammation is the effect of some acrid poison swallowed, it requires the same treatment as already recommended for poisons.

A late writer has published a few cases of inflammation of the intestines in which cold water, applied over the abdomen by means of napkins, succeeded in subduing the disease. This practice is too bold to adopt without the superintendance of an experienced practitioner.

The inner membrane of the stomach and intestines is subject to inflammation, similar to that of the cuticle, termed St. Anthony's Fire, which is, therefore, named Erysipelatous or Erythematic inflammation of the intestines. In this species, a grain of calomel, with the same quantity of opium, administered every four hours, generally proves successful. Stimulants, as a weak infusion of ginger, have likewise proved very efficacious, by producing a secretion of mucus, in which the disease seems to terminate. Medicines of this class should not, however, be employed without the sanction of an *experienced* practitioner. Children are particularly subject to this species of inflammation of the intestines, and in them it is attended with obstinate looseness, and often proves fatal. The warm-bath, small doses of calomel, and the Cretaceous Mixture, No. 64, with a diet of animal and vegetable jellies, as the hartshorn, isinglass, arrow-root, &c. are, in such cases, principally to be depended on.

DISTINCTION.—The great degree of fever, quickness of pulse, *constant* pain, and great heat, will distinguish this disease from colic.

INFLAMMATION OF THE THROAT.

This disease, generally termed Quinsy, occurs principally in spring and autumn, when vicissitudes of heat and cold are frequent. It affects especially the young and sanguine, and a disposition to it is often acquired by frequent attacks.

SYMPTOMS.—It commences with an unusual sense of tightness in the throat, particularly on swallowing, which is often effected with difficulty and pain. On inspection, some tumefaction and redness of the fauces may be perceived, which shortly spreads over the tonsils, uvula, and soft palate, attended with a troublesome clamminess of the mouth, fever, head-ache, delirium, &c. In desperate cases, the tongue and tonsils are so much swollen as to prevent deglutition, and even so to affect respiration, that the patient is often obliged to be supported in an

erect posture, to prevent suffocation. The inflammation generally attacks one tonsil first, which in a day or two it sometimes leaves and affects the other, and not unfrequently quits them both suddenly, and flies to the lungs.

CAUSES.—It is generally occasioned by the external application of cold air particularly about the neck. Whatever violently stimulates the fauces, in a plethoric habit, especially, as acrid food, poisons, &c. may produce it.

TREATMENT.—As the inflammation, from the delicate structure of the parts, soon advances to suppuration, *active* means should be *speedily* employed to disperse it. For this purpose the patient should take a *full* dose of the Aperient Mixture, No. 62, page 61; and after its operation, the Saline Mixture, No. 78, page 65, with twenty drops of antimonial wine at bedtime. The Gargle, No. 92 or 93, page 68, should be used frequently, and the Volatile Liniment, No. 103, page 71, applied *externally*, which for *slight* cases will generally prove sufficient; but if the inflammation should so increase as to give a sensation of suffocation, the extraction of blood near the part by leeches, or from the jugular vein, and a blister under the chin to reach nearly from one ear to the other, will also be necessary.

The diet should consist of gruel, arrow-root, and barley-water, acidulated with lemon juice.

If, notwithstanding these means, the inflammation advance to maturation, the gargle, aperient, and saline medicines, should be discontinued, and the patient allowed a little wine and beef-tea, till he be able to swallow more substantial food; and after the matter is evacuated, the Detergent Gargle, No. 95, page 69, should be employed, and three table-spoonsful of the following mixture taken three or four times a day:—

Take of red-rose leaves dried, two drachms: infuse in half a pint of boiling water till cold, then strain and add diluted vitriolic acid, one drachm; compound tincture of rhatany root or Peruvian bark, half an ounce.—Mix.

If the patient should, at any period of the disease, be incapable of taking a sufficient quantity of food by the mouth, a clyster of starch or broth (see No. 99, page 70,) should be administered three or four times a day, for the purpose of throwing nourishment into the system.

INFLAMMATION OF THE LIVER.

SYMPTOMS.—Fever with tension and pain (sometimes pungent, but more frequently obtuse) in the region of the liver, a pain at the collar bone and at the top of the shoulder of the right

side; much uneasiness in lying down on the left side: difficulty of breathing; a dry cough, vomiting, and hiccuph.

Inflammation of the liver has generally been considered of two kinds; *viz. acute* and *chronic*.

CAUSES. — Besides the causes producing other inflammation, such as cold, external injury from contusion, a blow, &c. this disease may be occasioned by certain passions of the mind, by violent exercise, by intense summer heats, by long continued intermittent and remittent fevers, and by various solid concretions in the substance of the liver. In warm climates, this viscus is more apt to be affected with inflammation than perhaps any other part of the body, probably from its size and numerous blood-vessels.

This disease, like other inflammations, may end in resolution, suppuration, gangrene, or scirrhus; but its termination in gangrene is a rare occurrence.

The disease seldom terminates speedily in death. In a few instances it has been observed to cease on the appearance of erysipelas, in some external part.

Before suppuration takes place, adhesion generally takes place with some neighbouring part, as the diaphragm, stomach, intestines, &c. when the matter will be discharged by the different outlets with which this part is connected, as by coughing, vomiting, looseness, or by an abscess breaking outwardly; but when no adhesion is formed, the matter will be discharged into the cavity of the abdomen, in which case the abdomen will swell, and an effusion of serum occurring at the same time, the patient will be affected with the species of dropsy termed ascites.

On dissection, the liver is often found much enlarged, and hard to the touch; its colour of a deep purple, and its membranes more or less inflamed. Dissections have shown, that adhesion to the neighbouring parts often takes place, and that large abscesses, containing a considerable quantity of pus, are often found in its substance.

TREATMENT. — The same remedies as are recommended for pleurisy are necessary in acute inflammation of the liver, except the situation of the blister, which should in this case be applied over the region of the liver.

The symptoms of the chronic species, (generally termed a liver disease), to which Europeans are very liable on residing in a tropical climate, are, on its first attack, pain of the right side, sometimes pungent, sometimes obtuse, extending upwards towards the shoulder, and occasioning tension of the right hypochondrium, with considerable fever and difficulty of lying on the left side.

With these symptoms are joined a strong hard pulse, dry cough, high-coloured urine, and often vomiting of a bilious matter. But the symptoms of this affection are frequently more obscure, and are confined rather to the common marks of stomach complaints, as flatulence, fulness of stomach, and frequent eructations. The appetite falls off, and an obscure fever prevails, with a slight evening exacerbation, inducing languor, want of sleep, and much oppression. Occasional uneasiness in the seat of the liver is experienced. In the progress of the malady, the countenance appears livid and sunk; and the eyes display a dull white, or yellowish hue. Under these symptoms the body becomes gradually emaciated, the region of the liver has a sense of fulness, and a slight swelling may be traced. But by this fulness the breathing is affected; and this symptom, which is attended with a hoarse dry cough, is particularly aggravated when the patient lies on the left side. In the end, dropsical symptoms, accompanied with jaundice, supervene; and under those complicated sufferings the patient is cut off. Sometimes an abscess opening externally, if it does not cure, at least prolongs the life of the sufferer. It is in the second stage of this malady, and when the symptoms are rather obscure, and chiefly referable to the stomach, that mistakes of this complaint are apt to occur; and this is the more to be regretted, as no disease yields to remedies so readily in the beginning, as the liver disease of tropical climates. When it is incipient, and the appearances regularly and strongly marked, regimen, along with a full evacuation of the bowels, will complete the cure. This evacuation may be made with gentle saline medicines, as the Epsom salt, &c. and afterwards with purgatives combined with calomel, till every symptom be removed.

When obviated, a mild vegetable diet, and the constant use of water for drink, will be the best means to prevent a recurrence; which must be guarded against by the occasional use of laxatives, and also by the seasonable intervention of an emetic. If, however, the disease has passed this first stage, and does not appear to yield readily to this simple plan, then the more free use of mercurials is requisite; and friction has been considered as the best mode of employing them. (See CALOMEL.) But as the discharge by the intestines appears at all times to facilitate the cure, calomel will in this stage of the disease be the preferable remedy.

Some practitioners have unfortunately proceeded on the idea, that a mercurial course, conducted in the same manner as for the venereal disease, was all that was necessary to remove the obstruction, and ensure a cure. But as it is evident, on the contrary, that the discharge by the bowels, joined with the action of the mercurial remedy on the liver, forms the most successful

means of cure, so no other preparation will be found to be equal to calomel. The secretions of the liver and bowels connected with it, are alone concerned, in a primary manner, in the treatment; and consequently, as the calomel excites their action by a powerful and continued operation, it is the most effectual remedy.

In the warmer climates, the extent to which mercurials may be carried before the system becomes affected, is surprising; at the same time that their influence on the salivary glands is here of less importance than in the venereal disease, insomuch, that though matter should form in the liver, the same treatment is equally applicable as in the first stages of the malady; no alteration ought to be made, unless when the matter of the abscess points, when it may be opened by a lancet.

Under the above course, a vegetable diet, consisting of the farinaceous articles, as sago, arrow-root, &c. should be strictly adhered to; and the beverage should exclude all spirituous and fermented liquors. (See **BILIOUS COMPLAINTS.**)

OF INFLAMMATION OF THE LUNGS.

SYMPTOMS.—This disease commonly commences with rigours, which are soon succeeded by difficulty of breathing, cough, pain or stitches in the chest, particularly on inspiration or coughing, a sense of fulness in, and tightness across the chest; great anxiety about the heart; restlessness; loss of appetite; the pulse quick, sometimes hard, and seldom strong or *regularly* full; the breath hot; the tongue covered with a yellowish mucus; and the urine turbid. The difficulty of breathing is most considerable on inspiration, and in a horizontal position; and in order to facilitate respiration, the shoulders and head are kept more or less elevated. In consequence of the obstruction of the free passage of blood through the lungs, the veins of the neck are distended, and the face swollen, with a dark red colour about the eyes and cheeks. The pain in the chest is generally aggravated by lying on the side affected, though sometimes the contrary happens, and very often the patient can lie only on the back.

CAUSES.—It is occasioned by the application of cold to the body, obstructing the natural perspiration of the skin, and thus producing a determination to the lungs, while, at the same time, the lungs themselves are exposed to the action of cold air. Suppression of accustomed evacuation, repulsion of eruptions, violent exercise, external injuries, and vehement exertions of the lungs, are often *exciting* causes of this disease.

TREATMENT.—The principal object in the treatment of this

disease, is to unload the vessels of the lungs ; by bleeding, and such remedies as are calculated to produce a determination of blood to the surface of the body and extremities, which, on account of the importance and delicacy of structure of the seat of the inflammation, should be employed as *speedily* and *fully* as possible.

With this view, twelve or sixteen ounces of blood should be taken by a *large* orifice, from the arm, and repeated according to the strength of the patient and the violence of the symptoms *; a large blister should be applied to the side most affected, and if the patient should complain of pain in the head, pulsation, or drowsiness, one should likewise be applied to the nape of the neck, and even to the feet. A dose of the Aperient Mixture, No. 62, page 61, should be taken every two hours, till it operates, and afterwards the Cough Mixture, No. 66, page 62, according to the directions there specified ; ten drops of the tincture of foxglove may likewise be given two or three times a-day, if the pulse should continue quick. The patient should be suffered to drink plentifully of the Almond Emulsion, page 88, or an infusion of linseed, acidulated with lemon-juice, which will be sufficient for his support till the symptoms are considerably abated, when he may be allowed a little arrow-root or tapioca jelly. If the skin should continue dry and hot, the body should be put into a warm bath of about 98 degrees ; for, in this disease, it is of the greatest importance to produce and keep up copious perspiration. After the inflammatory symptoms have entirely subsided, the decoction of the Iceland liverwort will prove an excellent restorative. (See No. 117, page 75.)

The structure of the lungs is so very delicate, that they will not sustain inflammation many hours without endangering the life of the patient, or laying the basis of consumption, particularly if the patient be of a serofulous habit. The active remedies recommended above should therefore be employed as *speedily* as possible, in order to abate and disperse the inflammation ; and not employed by degrees, as is too frequently the case with timid or inexperienced practitioners. Through an indecisive practice, many lives are doubtless, lost, that might have been saved, had active means been adopted in the first instance.

It is scarcely necessary to observe, that in case of inflammation of a part so essential to life as the lungs, the most able

* If the constitution of the patient be naturally weak, the extraction of blood from the surface of the chest, by cupping, will often prove more serviceable than from a vein.

advice should be resorted to in the first instance, as the disease, in the course of a day or two, may so far advance as to resist the most active treatment.

OF THE ITCH.

SYMPTOMS. — This disease first appears in small pimples with watery heads, which itch violently when the part is warmed by the heat of the fire or bed. By friction the pimples are inflamed, and assume a peculiar redness, which distinguishes the disease. It usually appears about the wrist, fingers, arms, and thighs, but seldom on the head.

CAUSE. — The pimples are evidently produced by an animalcule, which is described to be of a whitish colour, and formed like a tortoise, having six feet, and a sharp head, with two sharp horns on its points; others, who have not taken the trouble of making a microscopic examination, assert, that it is produced by an ichorous serum, which, by irritating the small ramifications of the nerves under the cuticle, occasions the itching and heat. If this latter opinion were correct, it could not be communicated by the clothes.

CURE. — Sulphur is a certain poison for these animalcules, and more safe and expeditious than any other application. In the Itch Ointment, No. 107, page 72, the unpleasant smell of this remedy is disguised. The part affected should be well anointed with it every night, till the eruption entirely disappears. The internal use of sulphur will, in all cases, assist its external application. The linen should be clean and often changed, and not worn again before it be well washed and bleached, so as to destroy the animalcules that may have lodged in it.

Dr. Gales, of Paris, in a work lately published on the cure of this disease, recommends sulphurous fumigation as more speedy and effectual than the usual methods of applying sulphur. That this remedy may have a trial in this country, the doctor has forwarded an apparatus to the author.

The decoction of white hellebore is by some preferred to sulphur, on account of being inodorous. It may be made in the following manner :

Take of white hellebore root, bruised, four ounces; boil in a quart of water to a pint and a half, then strain, and add lavender-water, four ounces; with which the parts affected should be washed two or three times a-day.

A solution of the sulphuret of potass, in the proportion of a drachm to half a pint of rose-water, is much recommended by Sir Arthur Clark as a lotion for the itch. It is certainly a

much neater application than an ointment; and from the trials I have made with it, I am disposed to consider it more efficacious.

Mercurial applications are preferred by many practitioners; but they are neither so safe nor certain as sulphur, and may under certain circumstances, prove very hurtful to the constitution. The advertised remedies for the itch are chiefly composed of arsenic, mercury, and lead.

OF JAUNDICE.

SYMPTOMS. — This disease generally comes on with listlessness, loss of appetite, drowsiness, depression of spirits, and generally costiveness, which are soon succeeded by a yellow appearance of the whites of the eyes, the nails of the fingers, and at length the whole surface of the body. The urine is highly tinged with bile, and deposits a yellow sediment, which imparts its colour to linen; the stools are of a light clay colour; a violent pain frequently extends from the right side to the pit of the stomach, which is considerably aggravated after meals; some are much disposed to sleep, and others to watchfulness.

CAUSES. — In this disease the bile not passing through the biliary duct into the intestines, it is taken up by the absorbent vessels of the liver, and conveyed to the mass of blood, from whence it is separated by the kidneys, and passes off with the urine. The causes of obstruction in the natural channel are various, viz. biliary concretions, in which case it is attended with paroxysms of acute pain in the regions of the liver and stomach: another cause is, compression of the biliary duct by schirrous tumours *, and sometimes the impregnated womb. It is often occasioned by spasmodic contraction of the biliary duct, in which case it is generally brought on by mental depression or uneasiness. †

* Schirrous enlargements of the viscera are generally the consequence of the abuse of spirituous liquors; drunkenness has therefore been enumerated as one cause of this disease. "When jaundice appears," says a modern author, "it may be reckoned a proof of the patient's being a veteran worshipper at the shrine of Bacchus." The drunkard should be taught to look into a glass, that he might spy the changes in his countenance. The first stage would present him with redness of eyes, the second will exhibit the carbuncled nose, and the third an obstinate jaundice, which will probably terminate his wretched career.

† It is remarkable that this cause is often produced by jealousy and anger. Hoffinan and Morgagni relate instances of the jaundice being repeatedly produced by mental commotions.

TREATMENT. — The cure of this disease depends on the removal of the impediment to the free passage of the bile through the biliary duct; but before the accomplishment of this object is attempted, it is often necessary to palliate the most distressing symptoms. Thus, if the patient be affected with a violent paroxysm of pain, we should endeavour to procure a suspension or mitigation, by the exhibition of twenty drops of liquid laudanum in a little peppermint-water, which should be repeated according to the violence of the pain.

When the obstruction is produced by spasms or biliary concretions, and the patient is of a plethoric habit, the loss of blood, by relaxing the parts, will afford considerable relief.

When it arises from concretions lodged in the biliary duct, the indication of cure is, to produce a dissolution of the concretion, or to facilitate its passage to the intestines, by relaxing and agitating means. The solution of biliary concretions is extremely difficult even out of the body, and of course must be much more so when lodged in the gall-bladder or duct. Dr. John Camplin asserts, that he has found aether to answer this purpose, and the author has certainly witnessed its good effects in several cases; but whether from a solvent power, as the Doctor supposes, or as an anti-spasmodic, the author cannot take upon him to determine: the latter is the most probable.

For the purpose of relaxing the biliary duct, laudanum, the loss of blood, the warm bath, and nauseating doses of the Tartarised Antimony Wine, No. 16, are the most powerful remedies; and the agitation of the parts, which will afterwards accelerate its expulsion into the intestines, is best effected by the Ipecacuan Powder, No. 23, the Aperient Pill, No. 46, and exercise.

When the disease is produced by the *pressure* of a scirrrous tumour *, the remedies to be depended on are the hemlock, with mercury, (in the following proportion,) and distilled water, recommended for the cure of cancer: —

Take of powdered hemlock recently dried, one drachm; prepared calomel, thirty grains; conserve of hips, sufficient quantity to form a mass; to be divided into thirty pills. One to be taken twice a-day, with three table-spoonsful of the following mixture:

Take of infusion of Columbo, six ounces; prepared soda, two drachms; compound tincture of cardamom seeds, half an ounce.
— Mix.

* Scirrhosity of the pancreas, by compressing the biliary duct, is not an unfrequent cause of jaundice.

If the bowels should be confined during the use of these medicines, an ounce of aloetic wine may be added to the mixture.

The diet should be regulated according to the state of the constitution: in cases of organic disease, the strength should be supported; but if it be produced by biliary concretions, the diet should be low, particularly if the patient be of a plethoric or inflammatory habit. But as vegetables are apt to generate a troublesome degree of flatulence and acidity in the stomach, the patient should be allowed broth, and a little animal food in substance.

In all cases of jaundice, it is good practice to excite a degree of irritation of the skin over the region of the liver, by the application of the *Euphorbium* plaster, with the view of preventing mischief.

Infants soon after birth are very subject to attacks of jaundice, from viscid mucus obstructing the gall-duct; for the removal of which, a gentle emetic of ipecacuan powder (about three or four grains) is generally sufficient; if it should yield to this remedy, a gentle dose of calomel and rhubarb may be given twice a week, and the Solution of Salt of Wormwood two or three times a-day, as directed, No. 21, page 23.

People subject to this disease from gall-stones, should be very particular in guarding against indigestion, and the consequent production of an acid. (See *Prevention of Indigestion*, page 320.)

Remarks.—Hence it appears that the yellowness of the skin is produced by bile taken up into the circulation, in consequence of an obstruction in the biliary duct. That the obstruction arises from spasms, from slime, biliary concretion, or the pressure of a diseased part. That the treatment must be regulated by the state of the system with respect to fulness or depletion. That when a proper state of system is produced, if the cause be spasms, ether, opium, and the warm bath will prove beneficial. When the cause be slime, the occasional exhibition of a mercurial purgative and an emetic will be necessary; when it is the consequence of biliary concretion, opium with the warm bath to relax the parts is proper; and when the spleen or liver is diseased, mercury is chiefly to be depended upon, conjoined with such medicines as the state of the constitution may indicate. That in all cases, the irritation produced by the *Euphorbium* plaster will tend to prevent mischief.

OF KING'S EVIL, OR SCROFULA.

The Latins termed this disease *scrofula*, from *scrofa*, a hog, because it has been observed in the swine. It is named the

King's evil, in consequence of Edward the Confessor, and other succeeding kings, both of England * and France, pretending to cure it by the touch.

In subjects of a delicate structure the absorbent system is often extremely tender, which probably constitutes what is termed the scrofulous habit. The absorbent vessels not acting in unison with the secerning extremities of arteries in different parts of the body, indolent tumours are formed. This state of the absorbent system is often transmitted from parents to their children.

In scrofulous subjects, the characters of the brain at an early period are strongly marked; and its intellectual functions are performed during youth, with unusual vigour.

The different opinions that have been broached respecting scrofula, as produced by a specific poison, or connected with the venereal disease, small-pox, &c. are too absurd to notice: nor is the idea of its being a disease of debility less erroneous; for its victims are equally the robust as the weak; it appears in the sanguine as well as the phlegmatic habit.

The derangement generally occurs in the glands of the neck, in the ligaments of the joints, and even in the substance of the bones. The glands of the mesentery are also often tumefied, and accumulation takes place in the substance of the lungs, forming what are termed tubercles.

TREATMENT. — The treatment of scrofulous affections must depend not only on the state of the constitution, but the structure of the parts affected, and their importance in the animal economy in which they occur. When the lungs are the seat of the mischief, it produces the disease termed Pulmonary Consumption, which is noticed page 228; when it takes place in the ligament of a joint, it is denominated White Swelling, the treatment of which is given under that head.

Numerous specifics for scrofula have been recommended, by the antient and modern writers, but none have supported their reputation. When the derangement takes place in a part of little importance in the body, we must attend to the general health, in doing which we must keep in view the state of the nervous system; for the absorbent system, which is entirely in error in this disease, derives its power of action from the brain;

* The last that practised this delusion was Queen Anne. In the London Gazette of the year 1707, is inserted a proclamation inviting her scrofulous subjects to the royal touch.

and whatever tends to increase the irritability of the nerves will aggravate scrofula. For the improvement of the general health, the directions given under the head of Indigestion, page 312, should be adopted in scrofula.

To invigorate and strengthen the absorbent system, cold bathing and the sea air have been found very beneficial; but when the mischief is situated in the lungs, the former cannot be employed with safety.

A little mercury is also very beneficial, by rousing the action of the absorbent vessels; but if it be given in quantity, or continued so long as to occasion irritation in the system, or what is termed the mercurial fever, it will aggravate the mischief. The local irritation of an issue is very beneficial in this complaint, and in plethoric habits its discharge is desirable. For the ulcers which follow suppuration, frequent ablution with lime-water, and the application of lint moistened with it, are more beneficial than greasy compositions. Washing scrofulous tumours with salt water, by invigorating the absorbent vessels, is generally of great service; as is also gentle friction with the hand.

In a subject of a delicate absorbent system, or what is termed the scrofulous habit, slight accidents, especially sprains, are often productive of considerable mischief. They should therefore be attended to in the first instance.

Solutions of corrosive sublimate and arsenic have been industriously advertised as specifics for scrofula. Such medicines, judiciously administered, may prove beneficial; but in the hands of ignorance they must, from their poisonous quality, be often productive of serious mischief; for if the dose be exceeded only a few drops, the patient's life may be destroyed; instances of which have certainly occurred; the proprietors' positive declaration that they are perfectly innocent, having induced many patients to exceed the dose specified in the directions, in order to accelerate their recovery.

Since the last edition of this work was published, an article obtained from burnt sponge, named Iodine, has been highly recommended by many English and French physicians, as a specific remedy for scrofula; and, from the very favorable results I have witnessed, in a great variety of cases, I am disposed to consider it to possess antiscrofulous properties. The best preparation is the spirituous solution termed the Tincture of Iodine, which may be administered twice a-day, in the dose of fifteen to three drops, in a wine-glassful of a decoction of marsh-mallow roots, or of Peruvian bark, if the patient be in a debilitated stage.

OF LEPROSY.

The true lepra, or leprosy, very rarely occurs in this country. To this head, however, is referred a great variety of cutaneous affections, which, for the most part, yield to the remedies recommended for cutaneous derangement, page 272. For the dry, scaly, chronic inflammation of the skin, generally termed leprosy, the ammoniacal plaster, with mercury spread on black silk, is a very efficacious remedy. (See *Eruptions of the Skin.*)

OF LUMBAGO.*

When rheumatism attacks the loins, it is thus denominated. In cases of pains in the loins, medical advice should always be taken; for should inflammation be here mistaken for rheumatism, and, as such, treated by *stimulating* medicines, the consequence would be a formation of matter, constituting the disease termed *Lumbar abscess*, which generally terminates in the death of the patient. Advertised medicines for lumbago have certainly been productive of much mischief in this respect. When the case is doubtful, the warm bath, a blister over the part, and the Antimonial Powder, as directed No. 37, may be safely employed. Lumbago requires the same general remedies and topical applications as recommended for rheumatism.

OF MEASLES.

This disease is highly infectious, and the constitution that has been once under its influence, is not liable to a second attack.

SYMPTOMS. — It generally begins with shiverings, succeeded by heat; a severe head-ache in adults, and heaviness in children; a slight inflammation and considerable heat in the eyes, attended with swelling of the eye-lids, a defluxion of acrid tears, an inability to bear the light, frequent sneezing, and discharge from the nostrils; sooner or later a fever comes on, with a cough, a sense of tightness across the chest, nausea, and vomiting. About the fourth, and sometimes the fifth day, red spots, resembling flea-bites, begin to appear on the forehead,

* To distinguish rheumatism by different names, from its attacking different parts of the body, unless it require different treatment, is surely ridiculous. To be enabled to distinguish local rheumatic affections by a technical term or fine-sounding word, is by some routine physicians considered a proof of learning!!

and other parts of the face, and successively on the lower parts of the body, which increase, run together, and form large red spots of different figures. The spots on the face sometimes appear a little prominent to the touch; but on other parts, do not rise higher than the surface of the skin. On the third day of the eruption, the vivid redness is changed to a brownish red, and in a day or two more entirely disappears, and is succeeded by a mealy scaling of the scarf-skin, and sometimes a difficulty of breathing, dry cough, pains in the chest, and fever; which, in scrofulous habits, often terminate in consumption.

TREATMENT.—If the inflammatory symptoms do not run high, the occasional use of the Aperient Mixture, No. 62, page 61, and ten or fifteen drops of tartarised antimony wine at bed-time, a low diet, and a warm room, will be sufficient. If the fever and affection of the lungs be considerable, the loss of blood, a blister over the breast-bone, and the Cough Mixture, No. 66, page 62, will likewise be absolutely necessary, and should not be delayed. The almond emulsion, linseed tea, or the compound barley-water, as directed page 88, should be taken freely. If, after these means, the cough, difficulty of breathing, and pain in the chest, should continue, it will be advisable to apply another blister between the shoulders, or two or three leeches to each side of the chest. If looseness supervene, it should not be checked, unless it be violent, and even in that case not suddenly. Five grains of rhubarb, with two of ipecacuan powder, will in general, for this purpose, be sufficient. After the spots have disappeared, the patient should not be too hastily exposed to a cold air.

The diet should be low in proportion to the degree of fever. The Almond Emulsion, page 88, or Compound Barley-water, page 88, and vegetable jellies, as Arrow-root, page 93, tapioca, sago, &c. will, in general, be sufficient, till the feverish symptoms have nearly subsided.

When the eruption recedes, blisters to the chest, the warm-bath, and a gentle emetic of ipecacuan powder, are the most powerful remedies that can be employed for its re-expulsion; but such cases being always attended with imminent danger, the *timely* advice of a practitioner in medicine should not be neglected.

If much debility of the system should come on towards the end of the disease, and particularly if purple or black spots appear, the strength of the patient should be supported with cordials, beef tea, and animal jellies, in order to assist nature in effecting a favourable termination. With this view the rhatany

root or Peruvian bark will also be proper, which may be given in the following form : —

Take of infusion of rhatany root, or the decoction of bark, six ounces ; extract of liquorice, one drachm ; diluted vitriolic acid, two drachms ; compound tincture of rhatany root, half an ounce. — Mix. From a dessert to two table-spoonsful to be taken three or four times a-day, according to the age of the patient and urgency of symptoms.

Yeast, on account of the quantity of fixed air it contains, has been employed in this case, for the purpose of counteracting a supposed tendency to putrescence in the system. In some instances it has been administered with success, in the dose of a dessert or table-spoonful four times a-day, but in the majority of cases I believe it has proved hurtful, by bringing on purging. If such an effect should follow its use, two or three drops of laudanum may be given with each dose. If the patient should be afflicted with violent purging, it should either be checked or moderated by the Cretaceous Mixture, No. 64, page 63. The propriety of restraining purging must, in a great measure, depend on the appearance of the faeces ; for if they be dark and offensive, and the strength of the patient not reduced by the evacuations, they may be considered of a critical nature, and should rather be encouraged than diminished : but to determine a point on which the life of the patient probably depends, the opinion of an experienced practitioner should be resorted to.

After the termination of the disease, there is frequently an inflammatory disposition remaining, which should be removed by gentle doses of the Basilic Powder, as directed, No. 36. If cough should, notwithstanding, come on, a blister to the chest, and the Cough Mixture, No. 66, will also be necessary.

Attempts have been made to communicate the measles by inoculation ; but I do not believe it ever succeeded, nor could any great advantage result from the practice.

DISTINCTION. — On the *first* attack of measles, it is often difficult to distinguish it from common catarrh ; in a day or two, however, the violence of the symptoms evince the nature of the disease. It may be distinguished from other eruptions by the *cough, watering of the eyes, sneezing, hoarseness, difficulty of breathing and drowsiness*, which precede the eruption.

Remarks. — Measles is a disease produced by a specific contagion, and runs a certain course. The object of practice is, in the first instance, to reduce the system by purgatives ; and if the system be plethoric, by bleeding ; and to keep up perspiration. As the Jungs generally suffer more than any part of the body in this disease, cough should be quieted by an anodyne mixture, and by blister.

In case of great debility, and symptoms of putrid fever coming on, the strength of the system must be supported, and if the eruption recede, the warm bath, blisters, and sudorific medicines, are necessary. After the termination of the disease, the use of purgative remedies are necessary to take off the inflammatory state of the system which generally follows it, provided the strength of the patient will admit of it.

OF MELANCHOLY.

Melancholy is a mild species of insanity, or rather incipient insanity, so nearly allied to hypochondriacism, as to require a similar mode of treatment. Indeed, it is very difficult in all cases to distinguish the hypochondriac affection from melancholy, the same temperament being common to both. Hypochondriacism is generally attended with symptoms of indigestion; and though there be at the same time an anxious melancholic fear arising from the feeling of these symptoms, yet while this fear is only a mistaken judgment, with respect to the state of the person's own *health*, and to the danger to be from thence apprehended, the disease may still be considered the hypochondriac affection, and distinct from melancholy; when an *anxious fear* and *despondency* arise from mistaken judgment, with respect to *other circumstances* than those of health, and more especially when the person is at the same time *without any symptom of indigestion*, it constitutes the disease strictly named melancholy; but as a melancholic temperament *may* induce a torpor and indolence in the action of the stomach, so it generally produces some symptoms of indigestion, and hence there may be some difficulty in distinguishing such a case from the hypochondriac affection. When the characters of the temperament are strongly marked, and more particularly when the false imagination turns upon other subjects than that of health, or when, though relative to the person's own body, it is of a *groundless* and *absurd* kind, then, notwithstanding the appearance of some symptoms of indigestion, the case is still to be considered as that of melancholy rather than the hypochondriac affection: these distinctions, however, bear no reference to any difference of treatment.

The distinguishing character of this disorder, is an attachment of the mind to *one* object, concerning which the reason is defective, and perfect with regard to other subjects. In its treatment, as in hypochondriacism, there is great scope for the management of the mind and passions. The chief point is to divert the mind from accustomed pursuits, and to introduce *variety* of matter, upon which it may exercise itself. This, however, requires the greatest caution and delicacy in the execution. Most melancholic persons are jealous of being esteemed as such,

and have generally a great opinion of their own wisdom and sagacity, and of course are apt to hold very cheap the common amusements of life, especially those connected with social intercourse and company, being inclined to think themselves neglected and despised by the world.

Van Swieten recommends travelling as best calculated for the cure of such patients, by introducing a gradual yet interesting variety of objects and subjects of attention, which are the more pleasing as they have not the appearance of being *intentional*. The purpose of travelling also (to those whose situation and circumstances admit of it) may be varied according to the disposition of the patient. This esteemed author relates, from his own knowledge, that several literary persons who were thus affected, would by no means be persuaded to go to any watering places for relief, which they thought would confirm the opinion of the world concerning their disorder, but were easily induced to travel for the purpose of viewing several libraries and resorts of learned persons; and the varieties of attention thereby produced, had the best effects in working a cure. He also recommends to endeavour to excite such passions as are of an *opposite* nature to those that have prevailed during the course of the disorder. Thus the timid are to be supported with such arguments and discourse as may tend to rouse the courage and resolution; the gloomy are to be cheered with merriment and pleasure; and the violent and passionate to be restrained by fear. Even shame, observes Dr. Falconer, may be sometimes used successfully in preventing the consequences at least of melancholy. Plutarch relates, that the virgins of Miletus were seized with an epidemic madness, that prompted them to destroy themselves: which was in vain attempted to be prevented, until it was ordered that the bodies of those who thus put an end to their lives should be dragged naked through the streets: shame here proved a more powerful motive than the sense of duty, or any of the social affections.

It is generally found conducive to the cure not to contradict *too peremptorily* the ideas and opinions of the patient. Opposition, if *too direct*, serves only to irritate the temper, and to confirm erroneous opinions. Such a degree of compliance as expresses only a *moderate* assent often succeeds. When the imagination is not inflamed by opposition, it often corrects itself. Sometimes, indeed, when the senses are *violently* depraved, it may be necessary to feign a more entire acquiescence with the opinion of the melancholy person. The introduction of sports and amusements, and such employments as consist of moderate exercise of the faculties, are likewise proper. (See Treatment of the *Hypochondriac Passion*.) Cœlius Aurelianus recommends,

for this purpose, that *literary* people should be amused with *philosophical* questions; that the *farmer* should be entertained with discourses on *agriculture*, and the *sailor* with *naval* affairs. Others, he says, may divert themselves with games of chance. Music, for those who have a taste and ear for it, may perhaps be a powerful remedy, and as such is mentioned by Celsus and other writers.

The observations made on the salutary influence of the true Christian religion on the mind, under the treatment of *Hypochondriacism*, equally apply to melancholy.

With the view of strengthening the brain and allaying nervous irritation, the head may be washed with, or immersed in cold water every morning. If the general health of the body be disturbed, the treatment recommended for indigestion will also be necessary.

OF MENSTRUATION.

Menstruation is a natural secretion, of a red colour, from the womb, so named from its occurring once in the course of a month. This periodical discharge appears to be for the purpose of keeping up sanguification, or the making of blood in the body, and a determination thereof to the womb, for the important purpose of gestation.

In consequence of its not appearing at a proper period of life, of irregularity after it has taken place, and of its being excessive, as well as at the period of its cessation, many derangements in the system occur, all of which I shall consider under this head.

The interruption of the menstrual secretion * may be considered of two kinds; — the one when it does not begin to flow at that period of life in which it usually appears, which is termed *Chlorosis*, or Green-sickness — and the other when, after it has repeatedly taken place for some time, it does, from other causes than conception, cease to return at the usual periods,

* Ladies are frequently at a loss to express themselves when they have occasion to speak of the state of this secretion; the usual term “*regular*,” I believe, is often misunderstood both by medical practitioners and patients, on account of its applying to the state of the bowels as well as to the uterine evacuation. The term *menstruate* cannot be mistaken by either. Instead, therefore, of the question, Are you *regular*? the physician may inquire whether menstruation be *regular*? or the lady may observe, she does not *menstruate* *regularly*, or that menstruation is either *irregular* as to its periods, or *too* or *not* *sufficiently* *abundant*. In the treatment of most disorders it is of importance that the medical attendant should be acquainted with the least *irregularity*.

ficially raised, without being afterwards *more* than proportionably depressed: and thus, after the effects of the spirit or wine are gone off, the person uniformly finds himself languid and enervated to a terrible degree. The ideas in the absence of the stimulus have all a gloomy cast, and every sensation is unpleasant: it leaves an aching void, which nothing can supply but a repetition of the cordial draught, which is no sooner swallowed, than another is desired: thus, by degrees, the structure of the brain itself — the very origin or root of the nerves — is injured, and delirium, often amounting to insanity, is the certain consequence.*

“ An anxious stomach well
 May be endured: so may the throbbing head;
 But such a dim delirium, such a dream,
 Involves you, — such a dastardly despair
Unmans your soul, as maddening Pentheus felt,
 When, baited round Cithæron’s cruel sides,
 He saw two suns and double Thebes ascend.”

Wine and ardent spirits, of every kind, ought chiefly to be employed as auxiliaries to medicine, in cases of great nervous debility. Persons in good health have no need of them: they are better and stronger without them: for in proportion as they exhilarate, so do they afterwards depress; and the habitual use of them, even in what is generally considered moderation, by too rapidly exhausting the excitability of the system, seldom fails to shorten the natural duration of life. In these observations it must be understood,

“ We curse not wine, the *vile excess* we blame.”

For after we have passed the meridian of life, a little wine may be more serviceable than otherwise; but the exact period when it should be employed must depend on the natural strength of the constitution and occupation of the individual. No person in health can require wine till he has arrived to forty: he may then begin with two glasses in the day; at fifty he may add two more; and at sixty he may go to the length of six glasses in a day; but

* The basis of the advertised nervous cordials is an ardent spirit, so powerful, that a tablespoonful is equal to a glass of the strongest brandy. These stimulants, by exhausting the excitability, soon blast the vigour, and sap the foundation of the strongest constitution. It is only those whose nervous system has been impaired by the abuse of spirituous liquors, that would, however, receive even a temporary relief from such medicines; and we may conclude that those who have attested their efficacy were addicted to dram-drinking. See analysis of a pretended Balm of Gilead in the seventh Number of the Monthly Gazette of Health.

not to exceed that quantity, even though he should live to a hundred. Good wine, in old age, keeps up the different functions of the body, on which account it has been aptly called, the “*milk of old age.*”*

“ Oh ! seldom may the stated hours return
 Of drinking deep ; I would not daily taste,
 Except when life declines, even sober cups ;
 Weak withering age no rigid law forbids,
 With frugal nectar, smooth and slow with balm,
 The sapless habit daily to bedew,
 And give the hesitating wheels of life
 Glibber to play. But *youth* hath better joys :
 And is it wise when use with pleasure flows
 To squander the relief of *age* and *pain* ? ”

Where the nervous system has been impaired by spirituous or vinous liquors, it will receive every benefit medicine can afford, by taking the above mixture ; attending to the directions for diet, &c. given under the head of Prevention of Indigestion, page 320 of this work, and in the fifth and sixth numbers of the Monthly Gazette of Health.

OF NETTLE RASH.

This eruption is so named from its resemblance to that produced by the stinging of the nettle. It is a very mild disease, and seldom requires the use of medicine. When it is attended with fever, small doses of the Epsom Salt, as directed, No. 2, or the Aperient Mixture, No. 62, with twenty drops of the tar-tarised antimonial wine, at bed-time, and a low diet, will be sufficient. If it be of a chronic nature, six drops of the dilute Vitriolic Acid, No. 18, may be taken three times a day (in a wine-glassful of cold camomile-tea). The aperient sulphureous

* People are so differently affected by wine, that it is impossible to lay down any general rule for regulating the quantity. Those whose brains are not easily affected by it, may take more than those whose nervous system is irritable. Hence we are to judge by the *effects* on the system, and not by quantity ; for if only half a glass disturb the brain, or inflame the system, it will prove more injurious to the constitution than if a bottle had been taken without such effects : again, people are more susceptible of its influence at one time than another, according to the state of the nervous system, and in some degree even the atmosphere. It is a remarkable circumstance, that people who have been in the habit of frequently drinking wine or spirits till their heads be affected, die apparently of formidable disease of the brain, and yet, on dissection, the brain exhibits no appearance of disease. The case, I apprehend, is, that frequent intoxication gradually impairs the electrical powers of the brain, and thus destroys life without producing organic mischief.

water, as directed under the head of Epsom Salt, No. 2, is also a valuable remedy.

OF NIGHT-MARE.

This complaint always happens during disturbed sleep. It comes on with a sense of great weight on the chest with great horror and agitation of mind; sometimes the patient imagines he sees spectres of various shapes, which seem to oppress and threaten him with suffocation: he attempts to cry out, but often without effect; sometimes the uneasiness continues after he awakes, so as to prevent his turning or moving in bed. The studious, and what are termed nervous people, are most subject to it.

CAUSE. — This disease is probably produced by compression of the lungs, and the consequent obstruction to the free return of blood from the brain from the mechanic effects of an overloaded stomach. Hence, people are most subject to it after a hearty supper, and on lying on the back with the head on a level with the chest.

TREATMENT. — If the patient be of a plethoric habit, the loss of blood will be proper. The use of the Aperient Mixture, No. 62, a spare diet, due exercise during the day, a light supper, keeping the feet warm by wearing flannel socks, and obviating costiveness, by the occasional use of the Aperient Pill, No. 46, page 49, will in general be sufficient.

If the patient be what is generally termed nervous, a tea-spoonful of the volatile tincture of valerian, taken twice a day in a wine-glassful of cold camomile-tea, is an excellent remedy.

When it arises from indigestion, the ground Jamaica Ginger, No. 49, taken at night in a little water, will prevent its recurrence. See INDIGESTION.

OF PAIN IN THE EAR, OR EAR-ACHE.

Acute pain in the ear, to which children are chiefly subject, most frequently arises from inflammation. It is accompanied by a sense of throbbing pain, and noise in the ear; sometimes deafness, and general symptoms of fever. In every affection of this kind, dispersion of the inflammation is to be attempted, by applying a few leeches within the external ear, by administering the Aperient Mixture, No. 62, page 61, by dropping a little laudanum into the passage, and by the application of a blister behind the ear, which should be kept open till the symptoms are considerably abated.

In all cases of a slight nature this treatment will be found to succeed; but in more violent affections suppuration is often unavoidable: the tendency to which is marked by an increase of

pain in the organ, and by a *more general* affection of the head. The only treatment then left is to endeavour to promote suppuration by fomentation, or by injecting warm water into the ear by means of a syringe. A poultice has also been advised, but the situation renders it an inconvenient form.

When matter once appears, it is to be removed by injecting warm water into the ear. Should the discharge be too profuse, or long continued, mild astringent injections will be necessary, consisting of five grains of acetated ceruse, or vitriolated zinc, in eight ounces of rose-water.

Sometimes the disease extends to the bone, in which case, before a cure can be effected, exfoliation will take place.

As deafness is sometimes the consequence of this complaint, the advice of an experienced surgeon should be taken in the first instance.

OF PALPITATION OF THE HEART.

This affection arises from morbid irritability of the heart. The beating is frequently so violent as to be heard at a considerable distance, and sometimes the effects of the increased action of the heart may be seen on the outside of the clothes.

TREATMENT. — The treatment of this disease, like most others, must depend on the state of the system; for the morbid irritation may be the effect of increased vitality, or fulness, or of debility and relaxation, or in other words, the inordinate action of the heart may be the consequence of super-irritation or sub-irritation. If the system be in a *plethoric* state, the loss of blood and the use of the Aperient Mixture, No. 62, page 61, will be necessary. In case of general debility, twenty drops of æther, with a tea-spoonful of tincture of castor, in a small wine-glassful of valerian-tea, two or three times a-day, will prove serviceable. When it arises from *malformation* or *disease* of the heart, or of the large vessels, relief may be obtained by avoiding plethora, much bodily exertion, full meals, and excesses of every kind, with the use of a medicine calculated to allay nervous irritability, as the following: —

Take of tincture of henbane, two ounces; tincture of foxglove, three drachms; sweet spirit of nitre, half an ounce. — Mix. Two small teaspoonsful to be taken two or three times a-day in a glass of water.

If the action of the heart be very violent, a blister may be applied to the left side. If its violence should not abate after the use of these remedies for two or three days, two grains of hemlock powder may likewise be taken every six or eight hours.

This affection is sometimes symptomatic of water in the pericardium, which chiefly occurs in aged people; when small doses of calomel (about one or two grains) taken every night for a fortnight, or till the mouth is rendered tender by it, and twenty drops of muriated tincture of steel, in a glass of water, three times a day, with the jolting of a carriage once a-day *, will prove beneficial.

This disease is sometimes the consequence of the communication between the auricles of the heart, which exists during the foetal state, remaining unclosed: such a case will only admit of the palliative means of avoiding plethora, violent exercise, and emotions of the mind.

As the heart receives its power of action from the brain, washing the head with cold water every morning has been very serviceable in cases of palpitation.

PALSY.

This is a disease of debility or diminished sensibility of nerves, sometimes of the whole body, more frequently of one side, rarely the lower extremities from the loins, and sometimes confined to a muscle or nerve, as of the bladder and anus, suffering the urine and stools to pass off involuntarily; sometimes the muscles of the tongue, occasioning stammering and loss of speech; sometimes of the optic nerve, producing the disease called *Gutta Serena*, or imperfect vision; and sometimes the nerve of the ear, producing deafness. In bad cases, where one half of the body is paralysed, the speech is much impeded, or totally lost, and convulsions often take place on the sound side. The muscles of the affected side of the face being relaxed, give those of the opposite side an appearance of being drawn up or contracted: and the patient having the power only of putting those in action on the *well* side, appears, on speaking, to elevate the corner of the mouth so as to amount to a kind of grin or laughter, which is only owing to the muscles of the *opposite* side being in a relaxed state. The paralytic part often gradually decays, shrivels up, feels much colder than any other part of the body, and with a weaker action of the arteries.

CAUSES. — This disease consists in diminished irritation, in consequence of compression, poison, or the division of a nerve.

* The exercise on the box of a carriage (without springs) is preferable to that of the inside of a carriage: but the nature of the disease should be well ascertained before such a remedy be employed; for should it arise from aneurism of the aorta, or any organic affection of the heart, such exercise would prove very hurtful.

Of the compressing causes, distension of blood-vessels of the brain, effusion of blood or serum within the head, or tumours, are the principal; and of the poison, lead. It is sometimes, but very rarely, the consequence of extreme debility.

TREATMENT.—When it is produced by compression of the brain, from distension or effusion, the paralytic numbness is only symptomatic of apoplexy, and as such should be treated. (See APoplexy.) If, however, the palsy continue *after* the compression of the brain is evidently removed, it should be treated as local palsy by external stimulants, as friction with flannels, or mustard flower, and blisters. Electricity, so much recommended for paralytic affections, by stimulating the brain and heart, is a dangerous remedy, and may, by producing a determination of blood to the head, occasion a fatal recurrence of apoplexy.* The organs of digestion should be invigorated by such stimulating medicines as will not, at the same time, increase the action of the heart and arteries; for this purpose a small tea-spoonful of powdered Jamaica Ginger may be taken twice or thrice a-day, or a pill of two grains of Cayenne pepper. The peristaltic motion of the bowels should be kept up by taking five or ten grains of the aromatic pill twice a-day, or in such quantity as to produce *one* stool every twenty-four hours. A seton in the nape of the neck, particularly if the patient be affected with giddiness, will afford considerable relief, and in order to prevent plethora, full meals and spirituous or vinous liquors should be avoided. For the purpose of promoting the circulation of the blood in the skin and extremities, flannel should be worn next the skin. If palsy be occasioned by the compression of a nerve, the mechanical cause (often a tumour) should be removed if the situation will admit of it, after which the sensibility of the affected parts may be restored by local stimulants and friction. When the lower extremities are paralytic, a seton should be applied over the os sacrum; or in case of distortion or disease of the spine over or on the side of the part affected. As the latter causes are of a scrofulous nature, the treatment recommended for scrofula should be employed. When palsy is confined to a muscle or a limb, the topical application of electric sparks and a blister, will prove serviceable. When it is produced by poison, the part should be stimulated by electric sparks, mustard poultices, and the Mixture, No. 74, or 71, taken as there specified.

LOCAL TREATMENT.

* This effect of electricity is by no means unfrequent. I have known several instances of apoplexy immediately to follow the application of electricity; and when palsy is the sequel of an apoplectic fit, this stimulus should never be employed.

Suimach has lately been recommended as a remedy for palsy. A grain of the powder is directed to be taken in any convenient vehicle twice a-day, and to be gradually increased to three or four grains. From the account given of it by Dr. Alderson, it appears to have effected more in the cure of palsy than has ever been ascribed to any other remedy, and such as justly entitles it to the attention of the *medical profession*. On the Continent it is however considered a powerful poison, and therefore should be given with great caution. In one of the cases, the dose was increased to ninety grains night and morning; and in some it appears that even two grains produced pain in the stomach and bowels, and considerably deranged the nervous system.

Dr. Gales, of Paris, has lately found sulphurous fumigation very beneficial in paralytic complaints, and cases of local debility of nerves. He advises the body to be exposed to the fumes for a short time every day in a machine, which he has invented for the purpose. That the author may give this remedy a trial in this country, the Doctor has lately sent him a machine.

The vomic nut, a powerful poison, finely grated, in the dose of two or three grains two or three times a-day, has lately been administered in Paris, and by some practitioners in this country, with great success. In the fourth volume of the Monthly Gazette of Health some cases of palsy are published, in which this remedy completely succeeded. Particular directions for its exhibition are also given in it.

The inhalation of vital air to the extent of three gallons daily, the author has lately found very beneficial in general and partial palsy, not occasioned by compression of the brain, or the consequence of an apoplectic fit.

We often meet with cases arising from morbid irritability of the brain and nervous system, in consequence of mental or corporeal exertion, to which the name of palsy is generally given. The species is generally aggravated by stimulating or tonic medicines. The use of the Epsom salts, as directed page 9, to obviate costiveness, the spirit of nitre, as recommended page 18, and the application of cold water to the head every morning by means of the shower-bath, the author has found very beneficial. The mind being also much affected, the directions for its management, given under the head of Hypochondriacism, should also be observed.

When the cause of palsy is not evident, the treatment recommended for indigestion should be adopted.

PECTORAL ANGINA.

This disease passed unnoticed, by practitioners, till the late Dr. Heberden published a description of it about forty years ago ; and although it is by no means rare, it is little understood by the physicians of the present day. It is evidently of a spasmodic nature arising from morbid irritability of the nerves of the heart, and is often the consequence of diseased structure, particularly of the artery destined to convey nourishment to the heart. A paroxysm is generally brought on by bodily exertion or mental agitation. When excited by walking, the fit will often instantaneously cease on standing still ; but after the disease has continued some months, it will attack the patient, not only on walking, but also on lying down, with such violence as to oblige him to rise up immediately in order to prevent suffocation. The fit commences with an acute pain beneath the lower part of the breast-bone, attended with a sense of constriction. The pain inclines rather to the left side, and often extends to the left arm, accompanied with great anxiety, difficulty of breathing, and a sense of suffocation. The late Dr. Fothergill observes, that *a sharp constrictive pain across the chest is the characteristic symptom of this disease.* No age is exempt from it. It attacks men more frequently than women, and particularly the short-necked, the corpulent, and sedentary.

CAUSES.—In young people this disorder probably arises from nervous irritability of the heart or internal muscles of the chest ; but, in elderly people, this state is generally accompanied with some *organic* disease of the heart or the coronary arteries.*

TREATMENT.—Our object in the treatment of this disease, is to allay the morbid irritability of the nervous system. If the sanguiferous system be overloaded, or what is termed in a plethoric state, it will be necessary to unload it by abstracting eight or ten ounces of blood from a vein of the arm ; and, if there be considerable irritation in the chest, a blister should be applied over the breast-bone. The bowels should be kept open by the occasional use of the Epsom Salt, after which two of the following pills may be taken two or three times a day :—

Take of the flowers of zinc, two scruples ; extract of hops, one drachm ; extract of henbane, one scruple ; oil of mint, twenty drops.—Mix, and divide into thirty pills.

If the paroxysm be violent, about thirty drops of ether, and ten of laudanum, may also be taken immediately on its

* A few months since I opened a gentleman who died suddenly of this disease. The coats of the coronary arteries were so thickened as nearly to obliterate their cavity. The heart was also preternaturally large and flaccid.

attack. The diet should be light, and free from every thing of a stimulating nature, as spices, spirit, and vinous liquors. The patient should be careful not to overload the stomach, or to use any kind of exercise immediately after meals, and to guard against any emotion of the mind. Corpulence being a predisposing cause of the disease, exercise, a spare diet, and the use of laxative medicines, are the best preventives. Dr. Darwin and Dr. Macbride have published several cases of this disease, that were effectually cured by issues alone.

If the patient be emaciated, the countenance pallid, and particularly if the legs swell in the evening, thirty drops of the ethereal tincture of steel, in three table-spoonsful of the infusion of Buchu leaves, will afford great relief. When thus attended with great debility of the system, it is scarcely necessary to observe, that bleeding or an issue is improper.

OF PILES.

This disease consists in small tumours, situated sometimes externally, and sometimes within the verge of the anus, for the most part attended with a discharge of blood. When there is no discharge, it is termed *blind piles*; and, when the discharge is only serum, *white piles*. This disease, at first, is generally local; but, by frequent occurrence, the constitution becomes so habituated to the discharge, as to render, it in some degree, constitutional: in which case it is preceded by head-ache, stupor, giddiness, and other symptoms of fever, with a sense of tightness or fulness, heat and itching, and a sense of dragging down towards the anus; or otherwise symptoms of indigestion, as flatulency, acidity in the stomach, &c. often attended with spasms. Sometimes the inflammation of one tumour runs so high as to advance to suppuration, and produce the sinous ulcer termed *fistula*.

CAUSES. — This disease may be occasioned by whatever interrupts the free return of blood from the rectum; such as a collection of hard faeces, or an impregnated or enlarged womb. It is sometimes produced by irritation; hence aloes, or the advertised Aperient Anti-bilious Pills, the basis of which is aloes, are very apt to excite piles by irritating the rectum. The piles are sometimes the effect of relaxation and debility, and, I believe, not unfrequently arise from an inflammatory action in the rectum, and a diminished secretion of mucus from its inner membrane.

TREATMENT. — When costiveness is the cause, the Electuary for the Piles, No. 85, or the Aperient Sulphureous Salt,

taken as directed, page 9, will remove it, and quiet the parts. If, after the due operation of either of these medicines, the disease should continue, the parts should be anointed with the Ointment, No. 105. In case of much inflammation, general bleeding, and the application of leeches to the part will be necessary, to prevent the formation of fistulous ulcers: and the patient should keep in a horizontal position, and strictly observe a low diet. If irritation be the cause, the same mode of treatment should be pursued, with the occasional use of Laudanum, No. 31; and, if it be the consequence of relaxation, the Tonic Mixture, No. 77, and the application of a decoction of oak bark (made by boiling half an ounce of the bark in a pint of water, for about ten minutes), should be frequently applied to the part. *Astringent* and *cold* applications should, however, be employed with great caution, and not without the advice of a surgeon, as apoplexy has followed the sudden dispersion of piles.

If the discharge of blood be *considerable*, the patient should be kept quiet, in a reclining position. The diet should be taken cold, stimulants and external heat should be avoided.

When the constitution has become habituated to the disease, and the parts have suffered from its frequent recurrence, stimulants, as pepper and ginger, taken with the aliment, often afford considerable relief. The following stimulating electuary, known by the name of Dr. Ward's Paste, has been much recommended: —

Take of elecampane-powder, two ounces; sweet fennel-seed powder, three ounces; black pepper powder, one ounce; purified honey and brown sugar, of each two ounces. The size of a nutmeg to be taken two or three times a-day.

Ginger-powder, and black pepper, generally have a very salutary effect in piles, although attended with great irritation, and even a degree of inflammation, which, one would suppose from their stimulating qualities, they would be more likely to increase. Such medicines probably afford relief, by producing an increased secretion of mucus from the inner membrane of the great gut*, and by invigorating the haemorrhoidal vessels.

In *elderly* people, piles are very frequently the consequence of some organic disease of the great gut; in which case the early advice of an experienced surgeon should be taken; as, by topical

* The application of stimulants to inflamed secreting surfaces has often a very happy effect, by producing the natural secretion of the parts, and exciting them to a healthy action. In the same manner, it is probable, aromatics prove serviceable in colicky, and even in inflammatory attacks of the bowels.

management, and the use of alterative medicines in the first stage, much serious mischief may be prevented.

An erysipelatous inflammation at the anus is very often mistaken for piles, by people who are unacquainted with the disease. This complaint is attended with a most troublesome degree of itching, and often an ichorous discharge. It soon yields to the following ointment: —

Take of citron ointment, spermaceti ditto, of each equal parts: To be well mixed together in a glass mortar, and rubbed over the affected parts two or three times a-day. The solution of the Epsom Salt, as directed, page 9, should accompany its use.

The parts are likewise subject to excrescences or warts, which are often mistaken for piles: these may be removed by ligature, caustic, or the knife. The excision of them by the knife is preferable, on account of being more expeditious, less painful, and attended with no danger. The ablution of the parts every night and morning with the following lotion for a month, will afterwards destroy the disposition of the skin to their formation.

Take of vitriolated copper, half a drachm; dissolve in rose-water half a pint.

The recurrence of piles will be best prevented by obviating costiveness, by proper management of diet, cold bathing, and general bleeding in full habits.

White piles I have always found to be the consequence of organic disease of the rectum; for the cure of which the treatment recommended for INDIGESTION, with five grains of Plummer's Pill every night, and the topical application of the Calomel Ointment, (see page 39,) have answered best.

Diseases of the rectum have, of late years, greatly increased in this country; in consequence, no doubt, of the increased use of aperient medicines, or the antibilious nostrums, chiefly composed of aloes *, to which the fashion of the day, of attributing all diseases to a morbid condition of the bile, has directed the attention of invalids. When a patient complains to a physician, unacquainted with surgery, of irritation within the verge of the anus, he is sure to attribute it to internal piles; and if it be a symptom of any other disease, he will probably order a treatment which will aggravate the mischief; and if the patient be induced, by his plausibility, to continue under his care, the

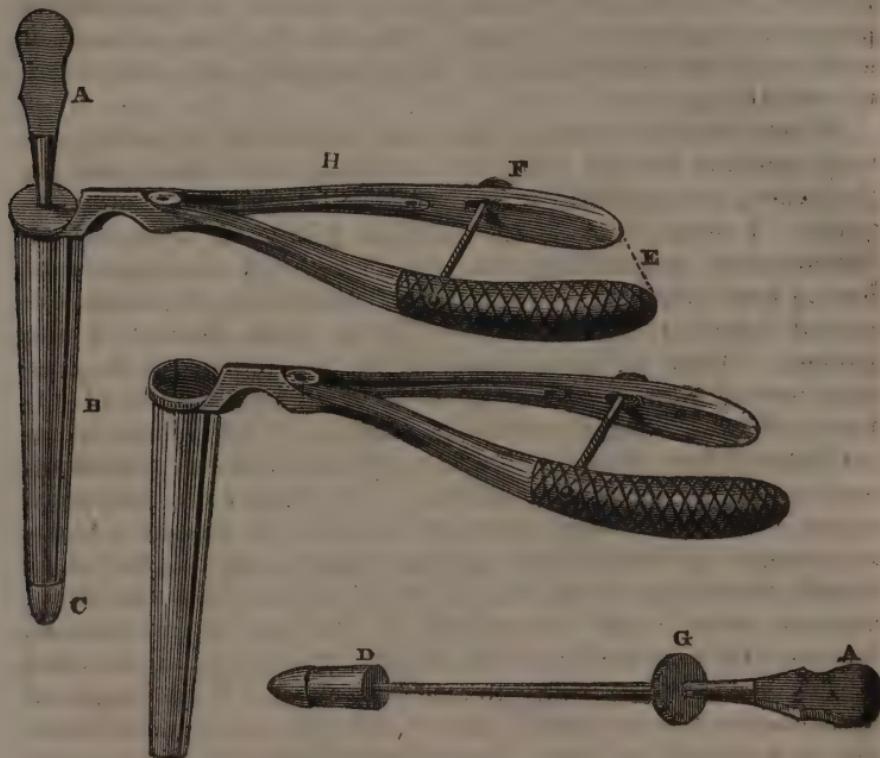
* The aperient pill, introduced by Dr. Dick, under the name of the Bengal Antibilious Pills, is not only a very efficacious bilious purgative, but, being free from aloes, does not irritate the rectum. See Aperient Pill, page 49.

disease will be hastened to an incurable stage. No class of diseases shews the necessity of a physician being acquainted with surgery, more than that of the rectum. The diseases to which the lower intestine is subject, may be easily cured in the first stage ; and the deplorable cases which frequently occur in practice, are more the consequences of injudicious treatment of physicians, ignorant of surgery, than even the false promises of another no less respectable set of practitioners, the advertisers of infallible specifics.

When irritation occurs in the rectum, or about the anus, it is very common for the patient to attribute it to piles ; and for physicians, unacquainted with surgery, to treat it for that complaint. I some time since met with a case of erysipelatous inflammation surrounding the anus, which, in consequence of having been treated by a high-bred Cambridge physician, extended internally and externally to the great distress of the patient. When irritation exists only in the rectum, it is generally termed internal piles. It, however, is symptomatic of different affections of the rectum ; the nature of which it is necessary to ascertain, in order to adopt a proper mode of treatment, and to prevent structural mischief, a very common consequence of neglect or injudicious treatment of a simple disease. Common causes of irritation are, varicose veins (containing very dark blood), thickening of the coats of veins, sinuses from rupture of varicose veins, small ulcerations of the internal membrane, fungous and indurated excrescences, and thickening of the coats of the rectum, occasioning external piles ; and if the causes of the irritation be satisfactorily discovered, by inspection, &c. much serious mischief, and many days of most harassing distress, may be prevented. The instrument generally employed for inspecting the rectum, does not expose a sufficient surface to enable a surgeon to discover the real condition of the intestine. In the first place, being made of a conical form, the anus or sphincter ani is so much put on the stretch, when it is introduced, that it will not admit of its being opened, for the muscle is in all cases of irritation in the rectum in a state of great irritability ; and in the next place, the end of the instrument being nearly closed, even when it will admit of being opened to its full extent, a very small proportion of the surface of the intestine at the extremity, is exposed to the eye. In consequence of finding this instrument of little or no use, I have made considerable alterations in it, which, I flatter myself, will meet with the approbation of my medical readers. Certain it is, that by its use I have been able to discover the causes of irritation in a great number of cases, and have succeeded in curing diseases of the rectum, which had been under the care of several eminent surgeons of

the metropolis many months, without being in the smallest degree relieved.

The following is a representation of the instrument, which I have named "Reece's Speculum Recti et Vaginae," being as useful for the examination of the vagina as of the rectum,



DESCRIPTION, &c.

A—The handle of the introductory staff.

B—The cylindrical body.

C—The end of the introductory staff, being nearly semi-globular, for the purpose of facilitating the introduction of the cylindrical portion. When introduced, the cylinder being expanded, by very gradually closing the blades of the handle E, the staff is to be withdrawn. When the cylinder is sufficiently expanded, it should be kept in that state by the screw F, otherwise the spring H closing it, will pinch the part of the intestine that may get between the expanded sides. The parts D and G tend to keep the staff steady during introduction. The internal surface of the cylinder, and indeed the whole of the instrument that comes in contact with the intestine, is highly polished. After the staff is withdrawn and the cylinder expanded, a considerable portion of the intestine is exposed at the end and the

sides; and on withdrawing it slowly, the whole surface may be examined, by keeping the eyes fixed on the opening at the extremity. The body is a perfect cylinder, and not slightly conical, as represented in the drawing.

The internal membrane of the rectum is also subject to chronic inflammation, exhibiting a peculiar dark red appearance, similar to the pigment termed Venetian red, with nearly a dry surface, which can only be ascertained from erysipelatous inflammation by inspection. It is in this disease, and in a varicose state of the veins, termed internal piles, that stimulants have been employed with success, probably by promoting the secretion of mucus: which, in cases of erysipelatous inflammation and ulcerations, have occasioned much serious mischief. Another advantage arising from the open end of the improved speculum, is an exposure of the strictured part of the rectum, in case of morbid contraction or thickening of the coats, so as to enable the practitioner to introduce through it a bougie with great facility. It also enables a surgeon to divide a fistulous ulcer to the extremity, when it extends beyond the reach of the finger, without running any risk of wounding the opposite side of the rectum, by using a conductor with a piece of cork fastened at the end, to receive the end of the bistoury. In cases of stricture or thickening of the coats of the intestine, or disease in the cellular membrane, extension or compression may be made more effectually, and with less pain to the patient, by introducing beyond the part the prepared membrane of the intestine of a sheep or a calf, according to the degree of contraction — the upper end being secured, it may readily be conveyed by means of a small metallic bougie, and afterwards distended with warm water by a syringe fastened at the other end. The pressure thus produced occasions no pain, and the action of the warm water facilitates dilatation. The external surface of the prepared membrane, after being moistened by warm water, and wiped dry, may be besmeared with mercurial ointment, or any other composition, the state of the internal membrane, or the nature of the disease, may indicate. In cases of ulcerations, phagedenic, glassy, or granulated, either irritable or otherwise, a weak solution of the super-acetate of copper, and also the cerate of it, have uniformly succeeded in healing them. The improved speculum is also as useful in the detection of the nature, &c. of the diseases of the vagina as those of the rectum; and perhaps more so in affections of the cervix uteri.

In cases of superficial ulceration, rupture of varicose veins, relaxation of the rectum, occasioning prolapsus ani, sinuses, fissures, organic stricture, &c., the bougie made with the plaster of acetate of copper has proved more beneficial than any other.

Being made with lint instead of linen, its mechanical effects are scarcely felt, and the composition which covers its surface most effectually allays irritation, and promotes a healthy secretion from the internal surface. In cases of varicose veins, and the commencement of disease in the cellular substance or coats of the intestines, which, if neglected, advance to contraction, it is also a valuable remedy. In some cases attended with hardness or sanguous discharge, the surface may be covered with the cerate of the nitrate of mercury or mercurial ointment. The saturated tincture of the Buchu leaves, in the dose of two teaspoonsful, two or three times a day, in a large wineglassful of decoction of the marsh-mallow root, is also a powerful auxiliary to the local treatment by allaying irritation in the stomach and intestinal canal, and improving the general health. No local disease disturbs the stomach and constitution more than those of the rectum. By Mr. Abernethy, they are attributed to a disordered state of the digestive organ; but the immediate beneficial effects of topical applications on the general health, prove that the affection of the stomach was symptomatic of that of the rectum. The sympathy existing between the rectum and bladder, and the rectum and urethra, is so great, that it is often difficult to ascertain which is sympathetically affected. — I lately met with a distressing case of morbid irritation of the bladder, and spasmodic stricture, of several months' standing, which terminated almost immediately after the removal of three small but troublesome excrescences, within the rectum.

OF PLEURISY.

Inflammation of the membrane termed pleura, which covers the lungs, and lines the internal surface of the chest, is thus termed. It is attended with the same symptoms as inflammation of the lungs, and requires the same mode of treatment, with respect to medicine, diet, &c. as recommended for that disease.

OF THE PUTRID SORE THROAT.

SYMPOTMS.—This disease, also termed malignant sore throat, commonly commences with alternate chills and heats, pain and heaviness of the head, a strong expression of anxiety in the countenance, and other symptoms of fever, which are soon succeeded by slight swelling of the throat, the tonsils becoming inflamed and tumid, which rapidly spread to the neighbouring glands. The fauces have a high florid, or bright crimson appearance, somewhat shining or glossy, and soon attended with

whitish or ash-coloured spots, which increase rapidly, and terminate in ulcers, more or less superficial; the tongue, at the same time, becomes foul, the breath exceedingly offensive, with general irritation or disturbance of the nervous system. The feverish symptoms are much aggravated towards night, and accompanied with delirium. The disease gradually grows worse; and, about the third day, the patient is affected with nausea, griping, and dysentery (probably in consequence of the discharge from the ulcers passing into the stomach). There is commonly, (especially with children,) a partial or general crimson efflorescence of the skin, or an eruption of small pustules, which relieves the affection of the stomach and bowels; the early and kind appearance of which is therefore to be considered a favourable omen.

CAUSES. — This disease is supposed to be produced by a peculiar specific contagion, and to be highly infectious, but it is probably occasioned by some atmospheric cause. It affects all ages, occurs chiefly in autumn, and prevails in all situations.

TREATMENT. — This species of sore throat is generally terminated by a natural course; the chief object of its medical treatment is therefore, in the first instance, to moderate the fever in its progress, and to combat unsavourable symptoms. With the first view, a full dose of Ipecacuan Powder, as directed No. 23, should be administered on its commencement; and after its due operation, the Saline Draught, in a state of effervescence, as directed under the head of Salt of Wormwood, No. 21, page 23. If the emetic should not operate on the bowels, half an ounce of the Epsom Salt should be administered: but both emetics and purgatives should be employed with caution; for should they produce violent diarrhoea, (to which there is generally a great disposition,) they will, by reducing the strength of the system, tend to accelerate its fatal termination. On the contrary, if the faeces be black and offensive, and the countenance and spirits be improved by the evacuations, gentle purgatives will be very proper. The antimonial powder generally resorted to on the attack of *all* fevers, is, in the *second* stage of this disease, a very dangerous medicine, and, by reducing the vital powers has been productive of the most serious mischief, many instances of which have been noticed by Dr. Monro, who states "that he has known it to have hurried many to their graves in a few hours." The early application of a blister to the throat, and the use of the Acidulated Gargle, No. 93, page 68, will tend greatly to abate the inflammation and the consequent ulceration. When the diseased parts begin to suppurate, the saline draught should be discontinued for the Tonic Mixture, No. 77, page 65, and the Detergent Gargle, No. 95, used

instead of the astringent one. The patient should be supported with strong beef tea, and arrow-root jelly; and if incapable of taking a sufficient quantity by the mouth, the Nutrient Lavement, No. 99, page 70, should be injected three times a-day. If case of violent purging, the Anodyne Clyster, No. 96, will be proper, or forty drops of laudanum may be added to the nutrient clyster; and if the patient be not able to swallow the bark mixture, two drachms of Peruvian bark powder may likewise be added. The room should be fumigated twice a-day with the Nitrous Vapours, as directed page 97. The evaporation of the Acetic Acid, as advised, No. 38, page 45, will, in a small room, answer as well in destroying putrid particles in the atmosphere; but, for the purpose of inhaling, is by no means so efficacious as the nitrous vapour. As pure air is of great consequence to the patient, the faeces should be received into a pot with some vinegar in it, and immediately conveyed from the chamber.

The spirits of the patient should be supported by inspiring a confidence of recovery, and by keeping from him every thing that is likely to depress them, as funerals, passing-bell, the fatality of the disease in the neighbourhood, and particularly that of a friend. Even charms might be used with good effect, by the confidence they inspire, or by their engrossing the attention of the mind. Aretæus, fully sensible of the necessity of supporting the strength of the system in general, and how much this depends on the spirits, expressly counsels the patient "to be of good heart; and advises the physician to entertain him with such discourse as might tend to encourage his hopes of recovery." Hope and confidence are as necessary for the prevention as the cure of fevers attended with general nervous irritation.

The first stage of this disease is highly inflammatory, and therefore the treatment must be regulated by the symptoms as well as the state of the constitution. As the result depends on the degree of irritation it produces in the cerebral system (brain and nerves), it is of great consequence to lessen the violence of the inflammatory stage; and for this purpose, in a plethoric habit, the extraction of blood may prevent much mischief; but this is a remedy which may endanger the life of the patient, if the powers of the system have in any degree given way; for when the sloughing process has commenced in the fauces, the recovery of the patient will depend on the natural strength of the body. Cold water applied to the head, and even to the surface of the body, if the skin be dry, is a very important remedy, and should be frequently employed.

OF RHEUMATISM.

This disease commonly occurs in autumn and spring, and seldom in winter or summer, unless the vicissitudes of heat and cold be sudden and frequent. In a plethoric habit, or when attended with fever or super-irritation, it is called *acute* or *inflammatory rheumatism*; and when with sub-irritation, *chronic rheumatism*.

Of Inflammatory or Acute Rheumatism.

SYMPTOMS. — This species commences with the usual symptoms of fever, accompanied with pain, swellings, and redness of the joints, generally of the knees, hips, ankles, shoulders, elbows, and wrists, while the smaller joints of the toes and fingers are seldom affected. The *fever* rarely continues violent more than *fourteen* days, although sometimes the *pain* keeps shifting from one joint to another for some weeks. The *pain* and sometimes the *fever* is much increased in the evening, and the former, during night, is often acute. As the *pains* become fixed the *fever* generally abates.

CAUSES. — It is produced by exposure to cold, when the body is unusually warm, or by its *partial application*, or from a *continuance of cold*, as wet clothes, &c.

TREATMENT. — The first object in the cure of this disease is to abate the constitutional *fever*; for as long as the *febrile symptoms* run high, all *topical applications* will prove unavailing. For this purpose, particularly if the patient be of a *plethoric habit*, general *blood-letting* will be proper, and afterwards the *occasional exhibition* of the *Aperient Mixture*, No. 62, page 61, or either of the *Neutral Salts*, as directed, No. 2, page 9, after the *due operation* of which the *Antimonial Febrifuge Powder* may be exhibited as directed, No. 37, page 44; or if the *pain* be very *severe*, the following *draught* at *bed-time*: —

Take of *tartarised antimony wine*, No. 16, thirty drops; *liquid laudanum*, No. 31, fifteen drops; *camphorated julep*, No. 23, one ounce. — Mix.

Half a pint of *weak white-wine whey* should be taken in about an hour after this *draught*, to promote its *sudorific operation*, and the *mixture*, No. 63, page 62, may be taken every four or five hours during the day-time, in order to keep up its effects. The *draught* may be repeated every night till the *symptoms* are considerably abated. If the *inflammation* run high, the *application* of six or eight *leeches* to the *part* will be necessary.

When the fever is abated, and the pains become fixed, the parts should be well rubbed with the Cajeput Liniment, No. 5. In case the pain and inflammation continue obstinate, the use of the warm bath once in twenty-four hours, and blisters to the parts affected, will prove powerful auxiliaries to these remedies.

Opium, in the dose of one grain, three times a-day, is often very beneficial in acute rheumatism; but the loss of the blood, and the use of aperient medicines, should be premised. Exposure to cold should be avoided, and a low diet observed. Common whey, taken warm, affords an excellent medicinal beverage.

The tincture of the seeds of the meadow saffron, in the dose of twenty-five to forty drops twice a-day in two tablespoonsful of the camphorated mixture, has lately been much extolled as a specific for acute rheumatism by Drs. Williams, Uwins, and other respectable physicians; and the result of the numerous trials I have given it, confirms the reports they have made of it. The operation of acupuncture which consists in puncturing the part affected with a fine needle, has been lately much recommended as a speedy and effectual means of curing acute rheumatism. This treatment being more applicable to the chronic species, I shall particularly notice it among the remedies of that disease.

Galvanism or Electricity, a very popular remedy for chronic rheumatic complaints, by increasing fever, is uniformly hurtful in the acute species.

In the 49th Number of the Monthly Gazette of Health, cold-bathing and friction with ice are much recommended by a respectable practitioner, in cases of inflammatory rheumatism, and this treatment I have found to succeed in a few instances which resisted other remedies.

Of Chronic Rheumatism.

SYMPTOMS. — When the febrile symptoms, together with the swelling and redness of the joints attendant on acute rheumatism have entirely abated *, and the pain still continues to affect certain joints with stiffness or uneasiness of motion, on change of weather, the disease is termed *chronic rheumatism*, which often continues a length of time. The joints most surrounded by muscles, and the parts that are most concereted on bodily

* The period of acute rheumatism seldom or ever exceeds forty days; after which, if the pain continue, it may be pronounced chronic.

exertion, as the hip and the loins, are commonly the seats of this complaint. When it affects the hip joint, it is named *Sciatica*; and when situated in the loins, *Lumbago*.

TREATMENT. — The indications of cure are nearly opposite to that of the *acute* or *inflammatory* species; the latter being attended with inflammatory excitement of the system, and the chronic with diminished vitality or debility. The energy of the system should be roused by a warm stomachic medicine, as the Anti-rheumatic Mixture, No. 71, page 64, and the parts affected stimulated by electric sparks, the Volatile Liniment, No. 103, friction, and the application of flannel. If these means prove ineffectual, the application of a blister, or the following stimulating plaster, will be necessary: —

Take of Burgundy pitch plaster, one ounce; gum euphorbium in fine powder, one drachm. — To be well mixed and spread on leather.

The *hot-bath* may likewise be employed with advantage.

If the system be in a very debilitated state, or if the stomach do not perform its office, a drachm of the essential salt of bark, or extract of rhatany root, may be added to the anti-rheumatic mixture, and a little of the farina of the Jamaica ginger may be taken in the common drink. The diet should be generous, and the common beverage the spirit of juniper (commonly called gin), diluted with water.

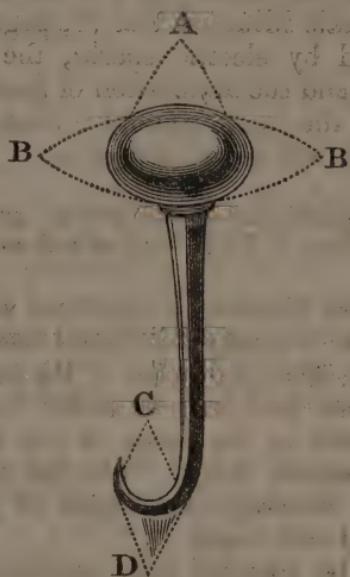
If the disease be attended with emaciation and particularly with an exacerbation of pain in the evening, or during night, two of the following pills may be taken twice a-day, with a quarter of a pint of the compound decoction of sarsaparilla: —

Take of prepared calomel, twelve grains; gum guaiacum, one drachm; extract of poppies, half a drachm; golden sulphur of antimony, one scruple. — Mix, and divide into thirty pills.

The Compound Decoction of Sarsaparilla, No. 118, page 75, should be taken to the extent of a pint a-day. A decoction of the leaves of the oleander or rose-bay, in the dose of a wine-glassful three or four times a-day, has been highly recommended as a remedy for *chronic* rheumatism. This decoction is made by gently boiling half an ounce of the leaves in a pint of water, till reduced to three quarters of a pint. It will be adviseable to begin with the small dose of a tablespoonful at first, and to increase it gradually till it arrives to a wineglassful.

Dr. Balfour, of Edinburgh, has lately recommended a practice which has been, for many centuries, employed in the East-Indies and in China, in the cure of chronic rheumatism; viz. to pommel and rub the affected part with a hard but smooth

substance. Admiral Henry has long adopted this mode of treating rheumatism on his own person, and, by perseverance in it, he has entirely destroyed the disposition in his habit to it, and also to gout, to which he was very subject. — In the 12th Number of the Monthly Gazette of Health, a hammer made of box is recommended both for pommelling and rubbing the different parts of the body affected with rheumatism or gout, of which the following is a representation: —*



The part A is for the purpose of rubbing a broad surface where the pain is deeply seated, as lumbago, sciatica, &c. The ends B are for pommelling and rubbing the affected part, rubbing the surface, as the ham, palms of the hand, face, &c. The inside of the curved end of the handle C is for rubbing the toes or fingers in cases of gout, and the convex end D is for rubbing parts that are indented, or to which the end of the hammer B cannot be applied, as the ear, the eye, the nose, between the fingers, &c.; and also where it is necessary to begin with a very gentle pressure, on account of the great sensibility of the part affected, as gout in the toe, &c.

Dr. Gales, of Paris, speaks highly of the effects of sulphureous fumigation to the whole body, as a certain remedy for rheumatism and gout. This gentleman has lately forwarded the apparatus constructed by him for applying the fumigation, to the author, that the practice may have a trial in this country. In chronic rheumatism of long standing, and in leucophlegmatic constitutions, or languid habits, it has proved beneficial; but in

This hammer may be obtained at the Medical Hall, 170, Piccadilly.

irritative rheumatism, it has uniformly aggravated the disease, and greatly injured the general health.

The practice of the Japanese of introducing the point of a fine thin needle to the seat of the disease, termed *acupuncture*, has lately been employed in this country by Mr. Churchill and Mr. Jukes, with great success. The puncture is made with such celerity as not to occasion any pain; and the relief it affords is instantaneous, and generally permanent. As the operator should be acquainted with the anatomy of the part to avoid injuring a principal branch of a nerve or of a blood-vessel, it cannot be safely employed in domestic medicine. The principle on which this treatment allays pain is not clear. If it excited irritation, it might be said that it acts on the principle of counter-irritation, *i. e.* the artificial counteracts rheumatic irritation. The immediate relief and the very pleasant sensation the operation occasions have induced some to suppose that the needle facilitates the escape of a subtle fluid, nervous or galvanic, with which the nerves were overcharged. The idea that galvanic fluid is conducted from the brain by means of nerves is not correct, for the nerves are certainly not better conductors of electric or galvanic fluid than the muscles, or any other part of the body.

When rheumatism occurs in a gouty subject, being always obstinate and painful, some practitioners suppose that it partakes of gouty action, I have therefore termed it *Rheumatic gout*. — In gouty subjects, in consequence of the morbid irritability of the nervous system, all diseases run high, and prove obstinate, particularly of tendinous or membranous parts. When rheumatism occurs in a gouty subject, the alkaline tincture of the colchicum seeds, in the dose of thirty to forty drops, twice a-day, is a valuable medicine. It may be taken in camphorated julep, or the anti-rheumatic, or tonic, as the state of the stomach or general health may indicate. As this medicine evidently diminishes the vital powers, it should be employed only as an anodyne to allay pain or abate its violence, and when it has produced this effect, it should be discontinued, more especially if the constitution be languid, or if it evidently depresses the spirits.

PREVENTION. — Cold bathing, and the use of flannel next the skin, are the most effectual means of preventing the recurrence both of chronic and acute rheumatism.

DISTINCTION. — Rheumatism may be distinguished from gout by not being *preceded* by pain in the stomach, symptoms of indigestion, and cramp of the extremities; by being seated in the *larger* joints, while the gout affects principally the *smaller* ones; occurring at an earlier period of life; not being *hereditary*; and, in general, can be traced to some exciting cause, parti-

cularly the action of cold. It is exceedingly difficult to distinguish rheumatic pains from those produced by deep-seated inflammation; and from the latter being mistaken for the former the most serious consequences have ensued, particularly when situated in the loins or hip joint; the stimulating applications, as electricity, &c. employed for the cure of rheumatism, increasing the inflammation, and occasioning extensive suppuration, which generally terminates in death. Such mistakes have happened even in regular practice; and, through the imprudent use of quack medicines, such terminations are very frequent. Lumbar abscess, a very formidable disease, begins with pain in the loins, resembling lumbago; and the only chance the patient has of recovery, in such case, is the prevention of the formation of matter. In all *doubtful* cases, therefore, the application of a blister, cupping, and the use of the following diaphoretic medicine, should be employed instead of the *stimulating* plan recommended for chronic rheumatism: —

Take of camphorated julep, No. 28, five ounces; Mindererus's spirit, No. 10, three ounces; sweet spirit of nitre, No. 15, three drachms. — Mix. Three tablespoonsful to be taken every four or five hours.

OF RICKETS.

This disease is peculiar to infancy, seldom appearing after the third year, or before the ninth month, but generally in the intermediate time. The first symptoms are an enlargement of the head, face, and belly; while the other parts of the body diminish in bulk, except the joints of the hands, arms, knees, and feet, which become irregularly tumefied. The bones lose their solidity, so as to give way to the weight of the body; hence the limbs which support the body, as the legs, thighs, and back-bone, become crooked and distorted, and the child of course, walks with more and more difficulty, and sometimes it entirely loses the use of its feet. The veins of the neck, and those that surround the large joints, are generally much distended, while those of other parts of the body appear in a diminished or contracted state; the countenance is lively, the cheeks full, and often florid, and the faculties of the mind sometimes impaired, but more frequently it possesses a premature acuteness of understanding. As the disease advances, the sides of the chest becomes flattened, the breast-bone elevated, often in a point, and the ends of the ribs knotty; the teeth

generally come forward at a late period, and soon turn black and decay, or become loose and fall out; the pulse is quick and feeble; the appetite sometimes good, but the digestion evidently bad, being frequently attended with flatulency and vomiting of an acid matter.

This disease seldom proves fatal, unless fever, consumption of the lungs, or obstruction of the mesenteric glands, supervenes: but, after the fourth or sixth year, the child generally gains strength, and the bones of the legs, though very crooked, often become straight as it grows up, while the distortion or the curvature of the back-bone frequently increases.

CAUSES. — Scrofula is a disease arising from tender structure of the lymphatic system; while rickets arises from debility or delicate structure of another set of vessels engaged in the mutation or support of the body termed the secerning extremities of arteries, whose office is to deposit nutriment; in consequence of which, the bones and muscles are not properly nourished, the former not being equal to sustain the weight of the body, and the latter becoming flaccid. From the frequency of this disease in marshy countries, a moist atmosphere has been noticed by medical writers as a *predisposing* cause. Some attribute it to bad nursing, the use of acescent food, and whatever may tend to debilitate the body; others, with less probability, have attributed it to scrofula, or venereal taint in the parents. In those who have died of the disease, the mesenteric glands, the liver, and lungs, have been found enlarged, and the bones nearly destitute of the earthy matter which gives them firmness and shape.

Dr. Bobba, of Italy, some time since presented to the Medical Society at Paris, some remarks on the cause of rickets. The bones owing their solidity to phosphate of lime, he ascribes the cause of rickets to a want of this substance; but whether the phosphate of lime be entirely wanting in the system, or the vessels destined for its disposition in the bones be too weak to perform their office, the Doctor does not take upon himself to determine.

TREATMENT. — The first object to attain towards the cure of this disease, is a proper digestion of the food; for which purpose it will be necessary to clear and to empty the intestinal canal by an active dose of the Basilic Powder, No. 36; after which, a dessert or tablespoonful of the following mixture may be given three times a-day: —

Take of extract of the rhatany root, one drachm; dissolve in lime water, six ounces; then add alkaline liquor of iron, three drachms; tincture of cardamom seeds, half an ounce.

If the faeces should continue pale after this medicine has been taken a week, a grain of calomel should be given every or every other night in a little currant jelly or sugar; and if the bowels should not be relieved twice, or at least once a-day, the basilic powder should be repeated. The alterative dose of calomel should be continued every other night for a week, or till the stools become of a proper yellow appearance.

After the disordered state of the digestive organs is corrected, cold bathing may be employed, for the purpose of strengthening the nutrient vessels of the body.

If, notwithstanding these remedies, an acidity continue to prevail in the stomach, which is frequently the case, the emetic of ipecacuan powder should be repeated, and the patient should, besides the mixture, take the Prepared Natron, as directed, No. 60; and when the symptoms of indigestion have subsided, the mixture need not be taken more than once a-day (about an hour before dinner). The limbs and even bowels should be well rubbed every night and morning with a flesh-brush, flannel, or a warm hand.

The plaster of the carbonate of iron, spread on calico, applied round the tumefied joints, has lately been much recommended by a physician in Germany, and, in many instances, I have found it to prove very beneficial. I have also applied it to the tumefied bowels of rickety children, with the most decided advantages, which I attribute chiefly to its mechanical support, and to a slight degree of irritation it keeps up in the skin.

If the bones of the lower extremities be curved, they should be supported by instruments, so made as to take off the weight of the body, by sustaining the pelvis, and at the same time to produce a slight pressure on the *distorted* parts. If the child be a female, great care should be taken that the instrument does not compress the bones of the pelvis. Many a case of distorted pelvis has no doubt been produced by the pressure of improper instruments. Some practitioners discountenance the use of instruments in the curvature of the bones of children; but as they cannot produce mischief when properly made, I think it would be more prudent to employ them, when the bones of the legs or thighs have evidently given way. For mere enlargement of the knees, they are certainly unnecessary.

The want of solidity in the bones, arising from a deficiency of the phosphate of lime, Dr. Bobba recommends the phosphate of lime to be administered internally, in order to supply it to the blood; but the disease is not the consequence of a deficiency of the phosphate of lime in the system, but the debility of the vessels whose office it is to deposit it in the substance of the bones.

The tincture of the muriate of iron, in the dose of five drops twice a-day, in a little water, was a very favourite remedy with the late Dr. Clarke in cases of rickets and flaccidity of the skin and muscular system of children. — The alkaline liquor of iron, in the dose of thirty drops, is a more efficacious remedy, particularly when acidity prevails in the stomach; it may be administered in lime water.

The Peruvian bark is much recommended as a strengthening medicine in cases of rickets. It is not so efficacious as the mixture of rhatany and lime water noticed above. The use of an issue in cases of rickets is much to be doubted. The discharge cannot be beneficial, but by increasing the debility of the frame, is very likely to prove injurious. It is, at any rate, too ambiguous a remedy to employ in domestic medicine.

Exercise being of great importance in the treatment of rickets, the child should be well tossed in the arms of an athletic nurse; and when she is tired, it should be put to roll and stretch its limbs on a carpet, instead of being rocked to sleep in a cradle, or put to sit and amuse itself with toys. A lively nurse, who will do her duty out of the sight of the parents as well as in it, will be of much greater service in establishing the health of a rickety child than even the most powerful tonic medicines. Nothing strengthens the digestive organs of children more than exercise; and if they have not their due share of it, indigestion and other diseases will be the certain consequences. *

The diet of rickety children should consist of a proportionate combination of animal and vegetable food, such as broth, chicken, veal, and bread or rice pudding; and the animal and vegetable jellies, as those of arrow-root, sago, and hartshorn shavings†, as directed page 93, and the beverage chiefly pure water. A teacupful of good fresh milk, with a tablespoonful of lime water, given two or three times a day, is very beneficial in this complaint.

In the 91st number of the Monthly Gazette of Health a correspondent states that she evidently saved the lives of three children, by adding a little lime water to all the articles of diet which would admit of it, as tea, milk, puddings, &c. It not only promotes digestion, but keeps down that irritation of the

To omit limbs and sinews etc in this subject to mention in each

* It is worthy of notice, that in manufacturing towns, where mothers do not allow themselves time to exercise their children, rickety complaints are most prevalent.

† The jelly produced by boiling, the prepared shavings of ivory, is more nutritious than that from hartshorn shavings, and when combined with the jelly of the arrow-root, forms a most nourishing diet for rickety or weakly children.

intestinal canal, which occasions rickets. Prior to the adoption of this practice she lost four children of rickets, and bowel complaints.

Malt liquor, wines of all sorts, vinegar, tea, and unripe fruit, should be particularly avoided.

If the child be affected with difficulty of breathing, or cough, flannel should be worn next the skin. (See CLOTHING OF CHILDREN, page 140.)

OF RUPTURE.

This complaint consists in the protrusion of some part of the contents of the belly, forming a soft compressible tumour generally occurring in the groin.

CAUSES. — Whatever diminishes the cavity of the belly, by forcing the bowels out of their natural situation, will produce this disorder, such as excessive laughing, sneezing, an impregnated womb, and sudden and violent exertions. The fashion of wearing the waistband of the breeches high up and tight round the waist, by pressing down the bowels, is one cause of the unusual frequency of ruptures in England of late years.

TREATMENT. — All that can be done towards the cure of a rupture, is to replace the prolapsed parts into the cavity of the belly, and to prevent them from slipping out again: the surgeon has then done his part, and the rest is nature's. For the purpose of retaining the bowels in their proper situation, after reduction, different bandages are employed, according to their seat. When the rupture is situated in the groin, or scrotum, an instrument, termed a truss, has generally been applied: which, if not properly constructed, by producing an *unequal* pressure over the aperture through which the bowels protrude, will occasion much mischief, by suffering a small portion of the bowels to get between the pad and the bone, so as to be pinched or contused. To obviate such a serious occurrence, several improvement shave lately been made in the common truss, by which, from the length and peculiar formation of the pad, and a regulating spring, an equal pressure is produced, and the descent of the bowels effectually prevented. In consequence of the elasticity of the *circular* spring, its use is attended with no inconvenience in walking or riding; and at the same time admitting of a rotatory motion, the pad is not displaced by any position of the body. This truss (termed Patent Self-adjusting Truss) is the invention of Messrs. Salmon, Ody, and Co. of No. 292, in the Strand, London. A principal advantage of this invention is, that it is not encumbered with understraps or bandages, which, during walking, are often productive of much irritation.

and inconvenience. The following drawings and instructions will explain the mode of application in different cases.

The cases to the springs, the back and front cushions, and their cases, are all made so as readily to take on and off to be repaired or cleaned; and additional sets of these may be had at the manufactory at a small charge.

The size of the springs may be readily increased or decreased, so as exactly to fit the body, which adjustment should be attended to, in order to secure a pleasant and proper effect.

The force or pressure of the truss is such, that the main spring alone is sufficient for common complaints; but persons with bad ruptures sometimes require additional springs, which are given with each truss. Although this may happen in the first instance, it is in such cases recommended to all persons, that as soon as they do properly keep the bowels, the pressure should be by degrees lessened.

Description and Application of Salmon, Ody, and Co.'s Patent Self-adjusting Trusses, requiring no understrap, or any other confinement of the Body.

OPPOSITE-SIDED TRUSS.

Fig. 1. Front view of the body, with the truss applied, as for a complaint on the left side.

Fig. 2. Back view of the same.

This sort of truss is called "*Opposite-sided*," because the spring is (contrary to the common construction of trusses) made to apply on the opposite hip to that on which the complaint is situated; that is to say, if the complaint be in the left groin, then the spring is placed on the right hip, and the front cushion brought across the centre of the body, and placed with its lower edge just coming down to the pubes, which bone is situate just under the hole from whence the rupture protrudes; the back cushion should then be situate exactly on the centre of the back. If the complaint be in the right groin, then the same truss will equally apply, but must be placed on the left hip, and continue across the body to the seat of complaint.

and portion less regards probably with increased tension, interval or distance of the two and the greater the necessary tension, the greater the strength and the less the time required for the repair. The vessels of the heart are, however, more liable to be ruptured than the vessels of the body, and the vessels of the heart are more liable to be ruptured than the vessels of the body.

It is not uncommon for the heart to be ruptured by a bullet, and the vessels of the heart are more liable to be ruptured than the vessels of the body, and the vessels of the heart are more liable to be ruptured than the vessels of the body.

It is not uncommon for the heart to be ruptured by a bullet, and the vessels of the heart are more liable to be ruptured than the vessels of the body, and the vessels of the heart are more liable to be ruptured than the vessels of the body.

Fig. 2.

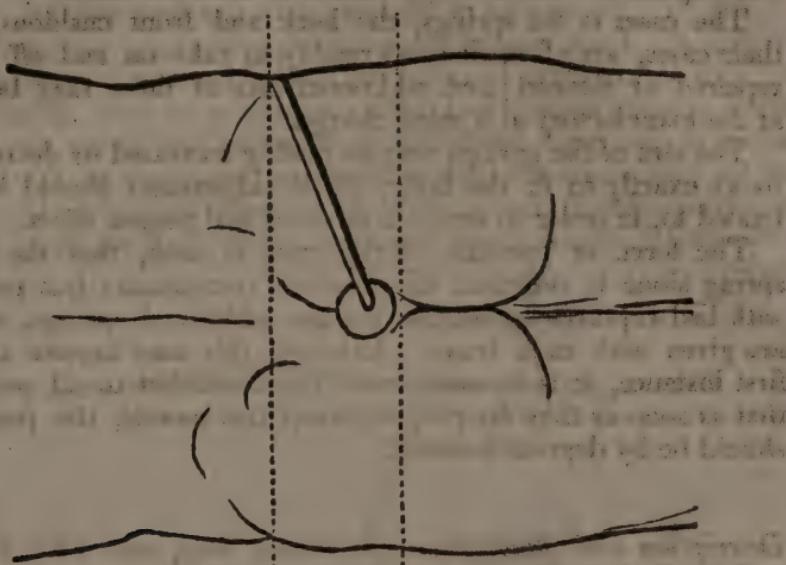
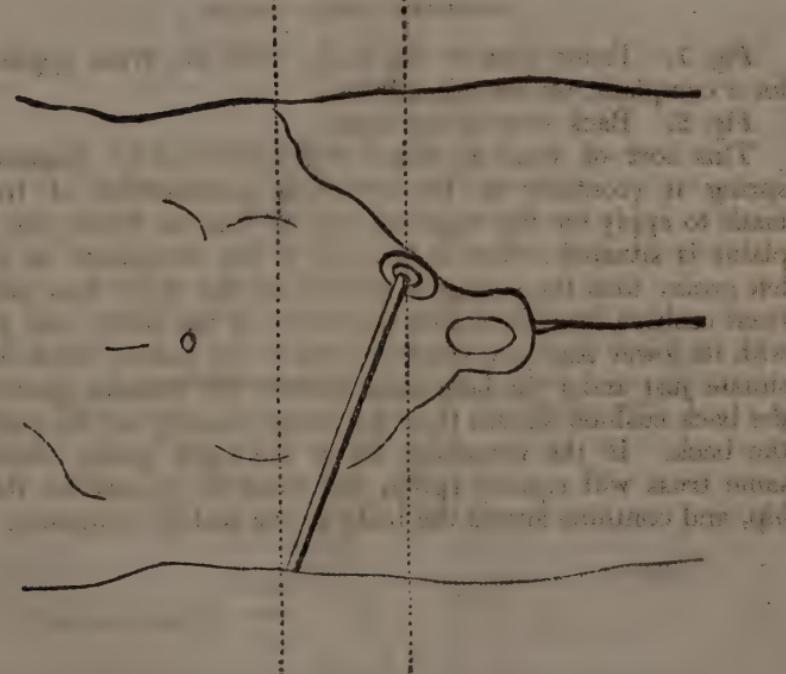


Fig. 1.



DOUBLE TRUSS.

Fig. 1. Front view of the body with the truss applied.

Fig. 2. Back view of the same.

This sort of truss is called "*Double*," because it is two same-sided trusses united, and is for complaints on both sides. To apply it, the front cushion must be placed just above the bone of the pubes, and the back cushion on the centre of the back; and when placed, the small strap in front is used to keep the cushions at due distance from each other, but not to be made tight.

Fig. 2.

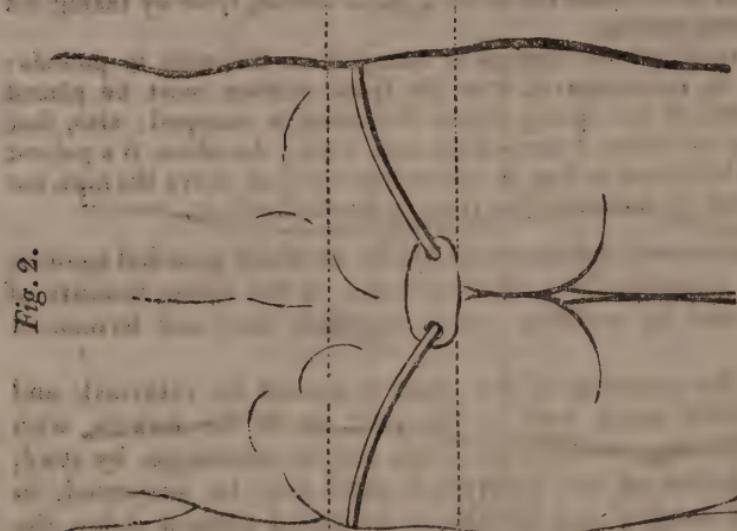
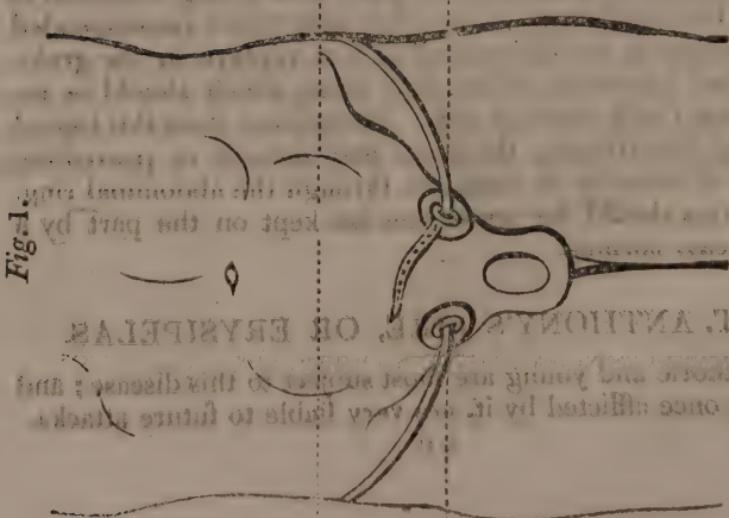


Fig. 1.



Directions to increase or decrease the Size.

At each end is a screw; by taking out which, the cushion may be moved more or less distant. If the screw behind be at the greatest length, then the front screw should also be the same, so that each end correspond with the other.

Directions to increase or decrease the Force.

By taking out the screw that fixes the back cushion to the spring, the leather case of the spring may be taken off; and, if more force be wanted, an additional spring must be laid on the back of the main spring, and the case put on again over both; or, if wanted, three springs may be introduced.

If wanted to decrease the force, it is, of course, done by taking out the additional springs.

The force of all the springs is stamped on the steel in pounds: it should be remembered, that the front cushion must be placed upon the end of the spring where the name is stamped; also, that the number of inches is marked on each truss; therefore, if a patient measures thirty-two inches in circumference (just above the hips, not from the seat of complaint,) a truss so marked will fit.

Costiveness and flatulence should be carefully guarded against, by taking occasionally a table-spoonful of the bitter tincture of rhubarb, and by avoiding much vegetable food and fermented liquors.

When the contents of the tumour cannot be returned, and attended with much pain in the part, or in the bowels, with nausea, vomiting, restlessness, fever, and no discharge, by stool, a strangulation of the protruded parts may be suspected, in which case surgical aid should be procured without delay, the life of the patient being endangered by approaching inflammation; and if the confined parts be not soon liberated, mortification and death will probably ensue.

Since the publication of the last edition of this work, the constant application of a solution of alum in a strong decoction of oak bark (two drachms to a pint) has been much recommended by some surgeons, for the radical cure of rupture in the groin. It is applied by means of fine soft linen, which should be re-wetted as soon as it becomes dry. In incipient cases this topical remedy, by constringing the part, may succeed in preventing the escape of intestine or omentum through the abdominal ring. The compress should for some time be kept on the part by a truss with easy springs.

OF ST. ANTHONY'S FIRE, OR ERYsipelas.

The plethoric and young are most subject to this disease; and after being once afflicted by it, are very liable to future attacks.

SYMPOTMS. — It comes on with cold shiverings, and other symptoms of fever; the hot fit is generally attended with great affection of the head, as drowsiness, confusion, and often delirium. The redness of the skin appears after the first or second, and sometimes the third, day of the fever, generally on the face, gradually spreading over the neck and scalp of the head, which becomes turgid, and the eye-lids often so swelled as to close the eyes entirely. The redness is attended with considerable heat, and disappears on slight pressure of the finger, but quickly returns on removing it. Soon after, blisters of larger or smaller sizes commonly appear, containing a clear watery fluid, of so ichorous a nature as to inflame the skin over which it is discharged. Sometimes the inflammation first appears on the legs, which are apt to become considerably tumefied. The disorder increases for two or three days, and continues at its height for two more, when it abates, and soon terminates in a falling-off of the diseased scarf-skin, in large scales; but sometimes the delirium increases, and inflammation of the brain intervenes, which, about the seventh, ninth, or eleventh day, often ends fatally.

CAUSES. — Some writers suppose that this disease is dependent on a preternatural saline state of the blood, and others contend that the nerves only are in fault. The former idea is much strengthened by the fact which chemical examination has established, that the serum of the blood of such patients is overcharged with muriate of soda. Whatever is capable of disturbing the brain and nervous system during the existence of an excessive saline condition of the blood (which in some subjects is constitutional) will bring the disease into action.

TREATMENT. — The brain, in this disease, is always more or less disturbed. When the patient does not complain much of head-ache, the occasional use of the Aperient Mixture, No. 62, with twenty drops of Antimonial Wine, No. 16, at bed-time, in a little *weak* white-wine whey, will be sufficient. The diet should be low, and the drink chiefly barley-water, acidulated with tamarinds. But when the head is much disordered, the feet should be put into warm water for ten or fifteen minutes, and a blister applied to the nape of the neck. If these fail to afford relief, and the person be of a plethoric habit, the loss of eight or ten ounces of blood from the arm will likewise be necessary. If, notwithstanding these remedies, the affection of the brain should increase, and the patient become delirious, the head should be shaved, and a large blister applied to the scalp, and mustard poultices to the feet.

As an alterative aperient, the Harrowgate Sulphureous Salt and the Leamington Salt have been found beneficial in this disease.

The dose is from two to four drachms, dissolved in a quarter of a pint of water.

The prepared ammonia, in the dose of five or six grains two or three times a-day, dissolved in water, has lately been much recommended by Dr. Peart, as a remedy for erysipelas, and it appears in many instances to have proved beneficial. The decoction of Peruvian bark, with the diluted vitriolic acid, is directed by some eminent practitioners to be given on the commencement of the disease; but the propriety of administering such medicines must depend on the state of the constitution. If there be considerable determination of blood to the head, attended with confusion of mind and delirium, no experienced practitioner would venture on their exhibition. When this disease proves fatal, it is generally by the mischief the brain sustains; the object of practice is, therefore, on the first attack, to check the velocity of the blood to the head, and to quiet the system, and particularly the mind. The symptoms of sub-irritative fever, termed typhus, which so often attend the latter stage of the disease, or appear a few days before dissolution of the patient, are merely the consequences of the affection of the brain.

The diet should be low, and consist principally of vegetable jellies; wine and stimulants should be avoided, unless the debility or sinking state of the patient indicates their use.

Great caution is necessary in the application of external remedies; as, by the imprudent use of repellents, inflammation of the brain has been produced. Fine oatmeal may be sprinkled over the parts, for the purpose of absorbing the discharge; but in case of much heat and dryness, cabbage leaves (stripped of the stems) softened before the fire, or by immersion in boiling water, will answer best.

In people predisposed to erysipelas, from a preternatural saline quality of the blood, inflammatory complaints generally run high. Inflammation or morbid discharges from secreting surfaces also prove very obstinate, as catarrh, inflammation of the eye and throat, gleet, and fluor albus. In ladies of such constitution, fluor albus particularly is often attended with a degree of inflammation, which might induce an inexperienced practitioner to suspect it to be of a specific nature. Medical men cannot therefore be too cautious in giving a decided opinion in such cases. For the purpose of correcting the erysipelatous habit, the treatment recommended for indigestion should be adopted, and persisted in for several weeks. In obstinate cases, a grain of calomel may be taken every night for a week. For breakfast and supper, the Sassafras Nut, page 94, will prove an excellent auxiliary.

Notwithstanding the great danger that always attends the use of external applications in this disease, empirics are bold enough to assert, that by the use of their lotions it may be infallibly cured. The author was some time since requested to see a young lady, afflicted with this disorder, who, from the use of an advertised remedy, was attacked with inflammation of the brain; and had she continued its application one day longer, it would probably have cost her her life. This *innocent* composition, as it was represented to be, on examination, proved to be a solution of corrosive sublimate of mercury combined with lead!

OF SAINT VITUS'S DANCE.

This is a convulsive disease, principally attacking children from ten to fourteen years of age.* It first shows itself by a lameness, or rather unsteadiness of one of the legs, which the patient draws after him like an idiot. It afterwards affects the hand, on the same side, so that if a glass of liquor be put into it to drink, before the patient can get it to his mouth, he uses a great number of odd gestures, through the hand being drawn different ways by the convulsive action of the muscles, in consequence of which he is not able to carry it in a straight line; and as soon as it has reached his lips, he often throws it suddenly into his mouth, and drinks it very hastily, as if he only meant to divert the spectators. The will of the patient seems often to yield to these convulsive motions as to a propensity, and thereby they are often increased, while the person affected seems to be pleased with increasing the surprise and amusement which his motions occasion to the bystanders. After it has continued some weeks, the intellectual operations of the brain are weakened, evinced by confusion of mind, and often amounting to idiotism. Females are most subject to this complaint.

CAUSES.—This disease arises from an increased irritability of the nervous system, which is often produced by some irritation in the stomach and intestines; such as worms, and sometimes by violent passions and perturbation of mind. In females, at the period of puberty, it probably arises from the same causes as hysterics.

TREATMENT.—The irritation of the cerebral system (brain and nerves) being generally symptomatic of a disordered state of the digestive organs, or kept up by irritation in the stomach,

* Dr. Rotherham observes, that he has seen this disease in a robust man of forty-two. This patient, after various ineffectual remedies had been used, was cured by strong electrical shocks, directed through the whole body.

or intestines, it will be proper to commence the cure by a purgative dose of the Basilic Powder, No. 36. After the due operation of which, strengthening medicines, combined with those that are known to allay nervous irritability, should be persevered in, such as the following mixture: —

Take of Essential Salt of Bark, No. 24. one drachm; dissolve in half a pint of water, then add tincture of Russian castor, three drachms; tincture of valerian, six drachms. — Mix. Two table-spoonsful to be taken three times a-day.

Or the following pills: —

Take of extract of rhatany-root, one drachm; flowers of zinc, and Russian castor, in fine powder, of each half a drachm; compound Galbanum pill, one drachm. — Mix, and divide into forty pills; of which three may be taken twice a-day.

If the complaint be attended with pain in the head, a blister should be applied to the nape of the neck, and the feet kept warm by the use of flannel socks; and, if there be evidently a morbid determination of blood to the head, which is often the case when attended with a suppression of the menses, the extraction of blood from a vein in the arm will also be necessary.

When the symptoms are abated, cold bathing every morning, if it do not alarm the mind, will prove of great advantage; and, with the use of the muriated tincture of steel, in the dose of ten or fifteen drops, in a glass of cold valerian and camomile tea, will probably complete the cure: if the patient have not sufficient resolution to go into the cold bath, cold water may be applied every morning to the head. The basilic powder should be repeated two or three times a-week, till nine or twelve doses have been taken; for if the nervous system be disturbed by the irritation of worms in the stomach or intestines, it will effectually dislodge them; and if the stomach and intestines are in fault, which, in ninety-nine instances in a hundred, is the case, the frequent exhibitions of such a purgative will probably remove the cause. If this treatment fail of affording relief, the cure should be attempted in the manner directed for epilepsy, a disease to which it is nearly allied.

In many cases electricity has proved of great advantage; but, in the majority, it has aggravated the symptoms by irritating the brain, and increasing the determination of blood to it.

The Electuary of Tin, No. 86, recommended for the tape worm, has been successfully exhibited at the Hereford Infirmary, in many cases of this disease. The good effects of this remedy

are attributed to its mechanical operation on the inner coats of the stomach and intestines, occasioning them to throw off redundant slime. With this view the author has lately given the granulated tin, in many diseases of children in which the stomach and bowels were disordered, with the most decided advantage. The diet should be regulated according to the strength of the patient: if plethoric, a low diet should be observed, and wine and stimulants avoided; on the contrary, if the body be much debilitated, a nutritious diet should be employed; but, even in this case, wine and stimulants should be allowed with great caution.

The sub-acetate of lead is also a very valuable remedy for this disorder, given with a tonic medicine, in the following form: —

Take dose in insomnia dura cum insomniis saudis est 10 gr.
Take of sub-acetate of lead, seven grains; extract of rhatany root, two drachms: dissolve in eight ounces of water, and add tincture of cardamom seeds, six drachms. Two table-spoonsful to be taken three times a-day.

The sub-acetate of lead is a very powerful medicine, and should in no case be employed internally without the attendance of a practitioner in medicine.

In the Monthly Gazette of Health, the tincture of the root of the meadow saffron is much recommended by Dr. Alderson, and some cases are published, in which it is said to have succeeded in restoring the patients to health in a short time. In the trials the author has given it, this remedy has completely failed.

The Prussic acid, in the dose of one drop in cold camomile tea, twice a-day, has been successfully administered in a few cases. By allaying nervous irritation, it is generally beneficial for a short time, but when it fails to quiet the nervous system, it uniformly proves injurious by disordering the stomach.

OF SCALD HEAD.

This disease is evidently communicated by a change of hats at schools, and by the use of the same comb. The whole of the hairy scalp is subject to it, but on close inspection, it will appear more virulent at the roots of the hair. The discharge is often so acrimonious as to cause swellings of the lymphatic glands of the neck. It is sometimes dry, and at others moist. Like the itch, it is probably produced by an animalcule.

TREATMENT. — On the *early* appearance of this disease, it will only be necessary to cut the hair short in the places affected, to

remove the scabs, and rub a little of the following ointment well over the parts : —

Take of the citrine ointment, three drachms; olive oil, one drachm. — Mix in a glass mortar.

When the disease has been neglected, shaving of the head will be requisite; after which, the scalp should be well washed with soap and water, till the scales and matter be entirely removed, when the following ointment should be well rubbed over the parts every night and morning, by means of a piece of soft leather : —

Take of the citrine ointment, and pitch ointment, of each half an ounce. — To be mixed in a glass mortar.

This ointment should be removed every morning, by first rubbing over the scalp some olive oil, and afterwards by washing it with soap and water, by means of a piece of flannel. If the disease appear to be more obstinate in one part than another, the hair of the part should be eradicated by degrees. During the use of this ointment, a cap made of oiled silk should be worn. When the virulence of the disease is abated, the cure may be completed with the citrine ointment and olive oil, as above directed; and, even after it has entirely disappeared, it will be necessary to wash the scalp once or twice a day with soap and water, or a decoction of tobacco, till the hairs begin to grow on the parts that have suffered, which may be considered a proof of the disease being destroyed. If fresh scales should continue to form, the application of ink will complete the cure.

In the fifteenth Number of the Monthly Gazette of Health, the following liniment is highly extolled as a remedy for scald head : —

Take of olive oil, two drachms; spirit of turpentine, six drachms.

— Mix. To be applied every night and morning, by means of a camel-hair pencil, after washing the part gently with soap and water.

When this disorder occurs in a scrofulous habit, it is generally extremely difficult to cure. In such cases the treatment recommended for scrofula will also be necessary. The internal use of mercury will not, however, be requisite, if the citrine ointment be well rubbed over the scalp.

If it should resist these remedies, the part may be well washed every morning with the following solution.

Take of sulphate of copper, half a drachm; elder-flower water, half a pint; or thirty drops of the saturated solution of the nitrate of copper may be added to an ounce of the citrine ointment. The latter composition is much recommended in the *Gazette of Health* for this disease.

Although this disease is apparently confined to the scalp, I conceive it will, in all cases, be proper to attend to the general health; and particularly to the digestive organs of the patient; and to guard against acidity in the stomach, by the use of the Carbonate of Soda, as directed, No. 60. If the stomach be disordered, an emetic of Ipecacuan Powder, No. 23, and a full dose of the Basilic Powder, No. 36, will be necessary; and, afterwards, from 15 to 25 drops of the Tincture of Iodine, in a wine-glassful of the decoction of marsh-mallow root, may be taken twice a day. If the patient be of a full habit of body, the solution of Epsom salt, or the aperient sulphureous salt, as directed, page 9, will answer best.

The diet should consist of a proper proportion of vegetable and animal food, and pure or distilled water used for the common beverage.

OF SCARLET FEVER.

SYMPTOMS. — This fever begins with chilliness and shiverings; soon after which, the whole skin becomes covered with partial inflammations, *more numerous, larger, and redder*, than those of the measles. In two or three days they disappear, succeeded by scalings of the scarf skin, like bran dispersed over the body, which fall off and appear again two or three times successively.

CAUSES. — Some writers suppose that this fever is occasioned by a peculiar contagion, and that it is infectious. It appears to be produced by some atmospheric cause, and is therefore generally epidemic.

TREATMENT. — This disease is generally so mild as to require nothing more than to observe a low diet, and to avoid a cold air and cold drink. If the body be costive, a dose of the Aperient Mixture, No. 62, or Powdered Jalap, No. 27, may be taken, and repeated occasionally; and, if the feverish symptoms run high, the Saline Mixture, No. 78, may likewise be taken every two or three hours, in the dose of a tea-cupfull. Barley-water, acidulated with tamarinds, or lemon juice, affords the best beverage. If attended with much pain in the head, or a sense of heaviness or stupor, a blister should be applied to the nape of the neck, and the feet immersed in warm water.

In this fever, as in erysipelas, if the brain be much affected, a degree of general sub-irritation ensues, attended with great debility of the system, when the treatment recommended for typhus fever will be necessary. (See also MALIGNANT SORE THROAT.)

OF SCIATICA.

When irritation occurs in the nerves of the hip-joint, or the great nerve of the thigh, it is thus termed. Like rheumatism in other parts of the body, it is both super-irritative and sub-irritative. (See RHEUMATISM.)

OF SCURVY.

The disease of the skin, termed land-scurvy, is noticed under the head of ERUPTIONS OF THE SKIN. In true scurvy there is a general disposition in the body to decomposition or putrefaction, and which actually takes place in different parts. It does not appear to be produced by contagion, and more frequently occurs in cold than in warm climates. Sailors, and such as are shut up in besieged places, are generally its victims. It is characterised by extreme diminution of vitality, such as a pale and bloated complexion, spongy gums, livid spots on the skin, offensive breath, oedematous swelling of the legs, foul ulcers, fetid urine, and extremely offensive stools; the pulse is small, frequent, and towards the last, intermits. This disease, in its last stage, exhibits a most lamentable and wretched appearance; with considerable aggravation of the above symptoms, the joints become swelled and stiff, the tendons of the legs rigid and contracted, general emaciation, bleeding at different parts of the body, the stools extremely fetid; at length, violent purging or dysentery comes on, and soon terminates the tragic scene.

CAUSES. — This disease arises, in the first instance, from the want of fresh provisions, and a due quantity of vegetables; probably assisted by the prevalence of cold and moisture, and such other causes as depress the nervous energy, as indolence, confinement, neglect of cleanliness, much labour and fatigue, sadness, despondency, &c. A preternatural saline state of the fluids is assigned by Dr. Cullen as its proximate cause. It seems to depend more on a deficiency of nourishment than on a vitiated state of the fluids. The reason that salted meat is so productive of scurvy is, because it is drained of its nutritious juices, which run off in brine, its fibres being at the same time hardened, and rendered more difficult of digestion.

TREATMENT.—A diet of fresh vegetables, and a beverage strongly impregnated with the juice of lemons, oranges, and the sub-acid fruits, are more efficacious in the cure of this disease than the most powerful anti-scorbutic medicines. The essences of malt and spruce have likewise been found of great service, probably from the quantity of fixed air they contain. When lemon or orange-juice cannot be obtained, nitre dissolved in vinegar, in the proportion of an ounce of the former to a quart of the latter, has been found to afford the best substitute: water acidulated with the nitric acid is, perhaps, not less efficacious: from one to two ounces or more of the former may be given three or four times in the course of the day; and of the latter, a quantity containing about fifteen or twenty drops of the nitric acid may be taken every five or six hours. The vitriolic acid, the Peruvian bark, and the red sulphate of iron, are likewise very valuable remedies in the far advanced stage of this disease.

The room or cabin of the patient should be fumigated two or three times with the nitrous vapours, as directed, page 97, which, with cleanliness, will contribute much towards the recovery of the patient.

The faeces and urine should be thrown away as soon after they are evacuated as possible, and the vessel rinsed out with vinegar.

The bleeding should be suppressed by the application of styptics; such as a solution of alum, with dossils of lint.

In case of ulceration, the lemon-juice, with tincture of myrrh, or vinegar and myrrh, will prove the most efficacious application.

The *true* sea-scurvy, being attended with diminished energy of the brain, exhibits, in a remarkable degree, the great influence of the passions of the mind. Depression of spirits, bordering on despondency, is its constant attendant, the counteracting of which, experience has proved to be of the utmost consequence to the recovery of the patient. In Lord Anson's voyage, it was noticed, in reiterated experience of this malady, "that whatever discouraged the seamen, or at any time damped their hopes, never failed to increase the distemper: for it usually killed those who were in the last stages of it, and confined those to their hammocks who were before capable of some kind of duty; so that (as the writer judiciously observes) it seemed as though alacrity of mind and sanguine thoughts were no contemptible preservatives from its fatal malignity." And in Mr. Ive's Journal, a remarkable instance of the good effects of an opposite state of mind is given: "Upon the British fleet coming into the bay of Hieres (Feb. 1744), the men understood they

were soon to engage the enemy's fleet. There appeared, not only in the healthy, but also in the sick, the highest marks of satisfaction and pleasure; and the latter daily mended surprisingly, insomuch, that on the 11th of February, the day they engaged the combined fleets of France and Spain, there were not above four or five men but what were at their fighting quarters." The siege of Breda, in the year 1625, affords an example of the influence of the mind in this disease still more striking: "That city, from a long siege, suffered all the miseries that fatigue, bad provisions, and distress of mind, could bring on its inhabitants. Among other misfortunes, the scurvy made its appearance, and carried off great numbers. This, added to the other calamities, induced the garrison to incline towards a surrender of the place; when the Prince of Orange, anxious to prevent its loss, and unable to relieve the garrison, contrived, however, to introduce letters, addressed to the men, promising them the most speedy assistance. These were accompanied with medicines against the scurvy, said to be of great price, but of still greater efficacy; many more were to be sent to them. The effects of this deceit were truly astonishing: three small phials of medicine were given to each physician. It was publicly given out that three or four drops were sufficient to impart a healing virtue to a gallon of liquor. They now displayed their wonder-working balsam; nor even were the commanders let into the secret of this cheat on the soldiers. They flocked in crowds about the dispensers of it, every one soliciting that part might be reserved for his use. Cheerfulness again appeared in every countenance, and an universal confidence prevailed in the sovereign virtues of the remedy. The effect of this delusion was really astonishing; for many were quickly and perfectly recovered; such as had not moved their limbs for a month before, were seen walking in the streets, with their limbs sound, straight, and whole. They boasted of the cure by the Prince's remedy, the motion of their joints being restored by simple friction with oil. Many who had declared they had been rendered worse by all former remedies, recovered in a few days, to their inexpressible joy, and the no less general surprise, by their taking what we affirmed to be their gracious Prince's cure." This curious relation (adds Dr. Lind) would perhaps hardly gain credit, were it not in every respect consonant to the most accurate observations, and the best-attested descriptions of that disease. It is given us by an eye-witness, who, an author of great candour informs us, wrote down every day the state of his patients, and seems to be more surprised with their unexpected recovery than he probably would have been had he been better acquainted with the nature of the malady.

An important lesson in physic is hence to be learned, by the wonderful and powerful influence of the passions of the mind on the state and disorders of the body. This is too often overlooked in the cure of disorders, many of which are sometimes attempted by the sole mechanical operation of drugs, without calling in to our assistance the strong powers of the imagination or the concurring influence of the soul. Hence it is, the same remedy will not always produce the same effect even in the same person, and that common remedies often prove wonderfully successful in the hands of bold quacks, but do not answer the purpose in a timorous and distrustful patient!

The diseases of the skin generally termed scorbutic are noticed under the head of Eruptions.

OF SMALL-POX.

This disease is highly infectious, and the constitution that has been once *properly* under its influence, remains secure against its future attack. When the pustules are separate from each other, it is termed *distinct*; and when they run together, it is denominated *confluent*.

SYMPTOMS. — Like other eruptive fevers, it comes on with shiverings, pain in the head, nausea, and the ordinary symptoms of fever; and sometimes, a few hours before the eruption, children are affected with convulsions. The eruption appears about the *fourth* day of the *fever*, first on the face, and afterwards on the neck, breast, and body. The pustules gradually enlarge and proceed to maturation, which is completed about the *eleventh* day after their first appearance, when the attendant inflammation and swelling manifestly abate, the eruption beginning to dry and scale off, and about the *fifteenth* day entirely disappears. The confluent sort is generally attended with more violent symptoms than the distinct, but observes the same period of termination, &c.

CAUSE. — It is produced by a *specific* contagion.

TREATMENT. — The small-pox, like the measles, always runs its determined course; all, therefore, that art can do, is to lessen the attendant fever, and to combat unfavourable symptoms. The great advantage of inoculation is, that precautions may be used, which cannot be employed in due time when received naturally; besides, by its being introduced into the constitution, when it is not much predisposed to take it, the crop will of course be less. To avoid a full crop of the eruption, it is necessary to lessen the fever by a dose of the Basilic Powder, No. 36, which should be repeated every third day till the eruption appear, provided the subject be not very weakly; or if the

infection have been received *naturally*, fifteen drops of antimonial wine, in a dose of the Saline Mixture, No. 78, may be given every six or eight hours, till the feverish symptoms are abated: a low and cool diet will be proper. Barley-water, acidulated with tamarinds, may be taken frequently. If the feverish symptoms run high after the eruption has appeared, the Basilic Powder and antimonial wine should be repeated, and the saline mixture taken oftener. When the pustules begin to maturate, the patient may be permitted gradually to take to his usual diet; and if the crop be considerable, and the strength of the patient much reduced, provided he be free from fever, a little Port wine, diluted with water, may likewise be allowed after dinner. When the brain has suffered during the fever, morbid irritability of the nervous system sometimes comes on, with general debility, attended with petechiæ, commonly termed purples, when it will require the same treatment recommended for typhus or sub-irritative fever.

The matter for inoculation should be taken about the seventh day of the eruption, on a lancet or needle, with which the skin of the person need be only slightly scratched. See Cow-Pox.

OF SPITTING OF BLOOD.

It is often difficult to determine, in cases of spitting of blood, whether it proceeds from the internal surface of the mouth, from the fauces, from the adjoining cavities of the nose, from the stomach, or from the lungs; it is, however, of importance to ascertain its source, which in most cases may be done, by attending to the following observations: when the blood proceeds from some part of the internal surface of the mouth itself, it comes out *without any hawking or coughing*; and generally, upon inspection of the mouth, the particular source of it becomes evident. When it proceeds from the fauces, or the adjoining cavities of the nose, it may be brought out by hawking, and sometimes by coughing, as from the lungs; so that in this way a doubt may arise concerning its *real source*. A bleeding from the fauces is, however, *more rare* than one from the lungs, and seldom happens but to persons who have been *before* liable, either to bleeding at the nose, or to some evident cause of erosion; and in most cases, by looking into the fauces, the blood may be perceived coming from thence.

When the blood is of a *florid* and *frothy* appearance, and brought up with more or less coughing, preceded by *rigors* and other feverish symptoms, with *anxiety* and a sense of *tightness across the chest*, there can be no doubt but that its source is from the *lungs*. When vomiting accompanies the throwing out of

blood from the mouth, as vomiting and coughing often mutually excite each other, so they may be frequently joined, and render it doubtful whether the blood thrown out proceeds from the lungs or the stomach: we may, however, generally decide, by considering that blood does not so frequently proceed from the lungs; that the blood proceeding from the lungs is usually of a *florid colour* and mixed with a little *frothy mucus only*; while the blood from the *stomach* is commonly of a *darker colour*, more *grumous*, and mixed with the *contents of the stomach*; that the coughing or vomiting, accordingly as the one or the other *first* arises in the cases in which they are afterwards joined, may sometimes point out the source of the blood; and lastly, that much may be learned from the circumstances and symptoms which have *preceded* the discharge.

When the source is from the stomach it is termed *vomiting of blood*, which is considered in its alphabetical order. When the origin is in the mouth or fauces, it is of little consequence, and may be checked by the use of the Astringent Gargle, No. 94, and the loss of blood from the arm, if attended with a plethoric state of the system. If the cause be erosion or ulceration, or if it occur during fever, the treatment must depend on the nature of such fever or ulceration.

What is strictly meant by *spitting of blood*, is when the blood is discharged from a ruptured vessel in the lungs, which is technically termed *Hæmoptoe*. It occurs generally from the age of sixteen to thirty-five, and chiefly arises from a faulty proportion between the capacity of the vessels of the lungs and those of the rest of the body; accordingly it is often an hereditary disease, which implies a peculiar and faulty conformation. It likewise happens, especially to persons who discover the *smallest capacity* of the lungs, by the *narrowness* of the *chest*, and by the *prominency* of their shoulders, which last is a mark of their having been long liable to a difficult respiration. It happens likewise to persons of a slender delicate make, of which a long neck is a sign; to persons of much sensibility and irritability, and therefore of quick parts, whose bodies are generally of a delicate texture. It likewise frequently arises from suppression of the menstrual discharge, from plethora, and violent exercise of the lungs.

The most frequent, if not only, cause of the rupture of a blood-vessel in the lungs, is, the deposition of scrofulous matter in the substance of the lungs, forming what are termed tubercles. The blood-vessels being partially distended by the pressure of tubercles, are easily ruptured by cough, or bodily exertion. The lungs of people who have died of the excessive loss of blood, or of the consequence of the ruptured vessel, viz.

pulmonary consumption, I have always found loaded with tubercles. See CONSUMPTION.

TREATMENT.—The discharge of blood may be moderated by avoiding whatever has a tendency to irritate the body and increase the action of the heart; a low diet should therefore be strictly observed, and external heat and bodily exercise avoided, the air of the room should likewise be kept cool, and the drink (which should consist chiefly of barley-water, acidulated with lemon-juice) taken cold, and the patient not suffered to exert his voice. After the operation of a little gentle aperient medicine, as lenitive electuary, or an infusion of senna, with a little cream of tartar dissolved in it, two table-spoonsful of the following mixture may be taken, to diminish the excitability of the system and quiet the circulation:—

Take of almond emulsion six ounces; acetated ceruse, five grains; distilled vinegar, two drachms; syrup of white poppies, half an ounce. — Mix. until to elicit a slight discharge of mucus out of the lungs and

In case of much cough, five drops of laudanum may be added to each dose of the mixture; but this medicine must not be resorted to unless it be violent.

If the pulse be not much reduced by the discharge, a few ounces of blood should be taken from the arm, and a blister applied over the breast-bone, especially if pain be experienced in the chest, either on coughing or breathing.

Emetics have been given in this disease with advantage by Dr. Robinson, and still more lately by Dr. Stoll, of Vienna, who observes, that in discharges of blood from the lungs, ipecacuan powder sometimes acts like a charm, seeming to close the open vessels sooner and more effectually than any other remedy. The good effects of this remedy are probably the consequence of the compression the lungs undergo during vomiting, from the action of the diaphragm and expiratory muscles.

When the discharge has ceased, its recurrence should be prevented by the use of cooling astringent medicines, as a wine-glassful of the infusion of red-rose leaves, with six drops of the diluted vitriolic acid, three or four times a-day; the loss of blood from the arm on experiencing any pain in the chest, or difficulty of breathing; a seton in the side, or perpetual blister between the shoulders or over the breast-bone; flannel next the skin; avoiding much exercise, particularly of the lungs; the occasional use of aperient medicines to obviate costiveness; and a spare diet, consisting principally of animal jellies. See Pulmonary Consumption.

OF STRANGURY.

When this complaint succeeds the application of blisters, the free use of diluting liquids, as linseed-tea or barley-water, with a few grains of nitre powder, and a little gum arabic, will generally afford relief in the course of a few hours. When it is occasioned by the pressure of an impregnated womb, costiveness should be avoided by small doses of castor oil, and an horizontal position observed as much as possible. When attendant on the stone or gravel, it may be relieved by the means already recommended for those complaints.

SWEATING, PROFUSE.

Excessive perspiration, attendant on inflammatory fevers, or internal inflammation, as pleurisy, &c. should always be considered *salutary*. If it be evidently the consequence of debility or relaxation of the system, the Diluted Vitriolic Acid, as directed, No. 18, will prove the best remedy.

In all cases of perspiration, it is of great importance to determine whether it be a *disease* or an *effort of nature* to relieve the system of plethora, which often requires an experienced practitioner to decide; even the colligative sweats attendant on pulmonary consumption, or hectic fever, are to be suppressed with the greatest caution.

OF TENESMUS.

SYMPTOMS. — This disease consists in a constant irritation at the fundament, with an inclination to go to stool, when little or nothing can be discharged, except slime or mucus, which is sometimes streaked with blood.

CAUSES. — It is often attendant on stone in the bladder, and diseased prostate gland, and frequently occasioned by inflammation of the neck of the bladder, from gravel, or the use of astringent and stimulating injections. It is likewise frequently produced by small worms in the rectum, acrid humours, the pressure of an impregnated womb, piles, &c.

TREATMENT. — When it is produced by the irritation of a stone in the bladder, it will require the same treatment as already directed for stone.

When it is occasioned by inflammation of the neck of the bladder (from whatever cause the inflammation may arise), the application of leeches, the use of castor oil, as directed, No. 3,

and the warm bath, will be necessary, and general bleeding, if the subject be of a plethoric habit.

If worms be the cause, the treatment recommended for their expulsion will be necessary; and when an attendant on pregnancy, small doses of Rhubarb, No. 25, or Lenitive Electuary, No. 47, and lying on the right or left side when in bed, instead of the back, will generally afford relief.

In all cases *aloetic* medicines are highly improper; the frequent use of which having, from their stimulating effects on the rectum, often produced the disease.

Under the head of Piles, I have noticed a few diseases of the rectum in which tenesmus is a symptom.

Tenesmus, in consequence of the ignorance of the patient in describing it, is often mistaken for diarrhoea, or purging. It is common for children to complain of being purged when afflicted with this complaint, when, instead of purging, an opposite state of the intestines exists, the evacuations being only mucus from the internal membrane of the rectum.

OF TETANY.

This disease is a spasmodic affection, and occurs chiefly in warm climates.

SYMPTOMS. — It is characterized by an involuntary and continued contraction of all or several of the muscles of the body, receiving various appellations, according to the situation of the parts attacked. When the muscles of the jaw are principally affected, it is named *Trismus*, or *Locked Jaw*. It commences with a stiffness in the back of the neck, which gradually increases to a pain, and renders the affected part entirely immoveable. It extends to the root of the tongue, affects the part concerned in swallowing, then attacks the front of the chest, and, lastly, seizes the back. Spasms at length arise in the stiffened parts, occasioning such excruciating pain, that death is often wished for, both by the patient and his attendants. A remission of the spasms often takes place every ten or fifteen minutes, but is renewed with aggravated torture on the slightest causes, even by the least motion of the person, or the touch of an attendant. The teeth become entirely closed, so that nothing can be introduced into the mouth; and, towards its termination, the voluntary muscles of the body are affected, producing the most hideous deformity.

No permanent fever attends this disease, though some temporary symptoms of it appear during the violence of the spasms. No habit of body is exempt from it, but the robust and strong are most frequently its victims.

CAUSES.—Cold and moisture, particularly sudden vicissitudes or irritation of the nerves, in consequence of local injury, as punctures, cuts, &c. are noticed by medical authors as causes of this disease.

TREATMENT.—When the disease arises from a wounded nerve, the most important step toward the cure is, to cut off the communication of the part with the brain, either by dividing the nerve in its course, or by destroying, to a certain extent, the affected part. If the wound be on a finger or a toe, it should be amputated.

Opium is the only remedy capable of allaying the morbid irritation that exists in this disease: sixty drops of laudanum should be given in a little wine every three or four hours, and the dose increased ten or twenty drops each time, till the violence of the spasms abates; it should then be continued at that dose for some time longer, the disease being very liable to recur. This medicine, even in large doses, does not operate in these cases as in other disorders; for, although it produces some remission of the spasm and pain, it scarcely ever induces sleep, or occasions that stupor, intoxication, or delirium, which it generally does in other complaints. Opium has been given, and, in a few instances, with success, to the extent of half a drachm, which is equal to about three quarters of an ounce of laudanum.

If the muscles of the jaw, and those concerned in swallowing, be so much affected that this remedy cannot be got into the stomach, it must be administered clysterwise, by dissolving about two scruples or a drachm of opium in half a pint of gruel, which should be injected every three or four hours. If the jaws be so closed by the spasm of the muscles, that they cannot be opened during any period of the day, it will be advisable to remove a portion of the front teeth, by a small saw or trephine: for it is certainly of great consequence to get the remedy, as well as nourishment, into the stomach, which may, in general, be afterwards done by means of a flexible tube; if, however, the muscles of deglutition, and those of the gullet, be affected, the body should be immersed in warm milk two or three times a-day, from which a sufficient quantity will be absorbed to support life; and, I think, if the milk were strongly impregnated with opium, it might also tend to abate the spasms.

Mercury has been much recommended as a remedy for this disease; and, as it does not interfere with the exhibition of opium, a drachm of the strong mercurial ointment may be rubbed on the inside of the thigh twice a-day, till the whole has

entered the system; and, in order to accelerate its operation on the constitution, the body may be placed in mercurial fumes, as directed by Lalonette, and lately recommended by Mr. Abernethy, in order more speedily to saturate the system with mercury, which, in so formidable a disease, is certainly of the utmost importance. For this purpose the patient should be enclosed *naked* in a kind of box resembling a sedan, having above an opening which encircles the neck, and at the bottom another, for the reception of a grate and heated iron; the mercurial * powder is to be thrown on the iron, and, after the fumes are entirely dispersed over the body, a flannel dress, which has also been fumigated, should be put on. †

Cold bathing is much extolled, and, it seems, in many instances, has succeeded in curing this disease: and as the use of the warm bath is very doubtful, and, in many cases, has proved hurtful, the cold bath should have the preference.

The application of blisters, and loss of blood, have apparently, in some instances, proved serviceable; but, in the majority of cases, they have had no salutary effect, and, in many, have appeared to aggravate the symptoms.

Dr. Reid, a scientific physician of Edinburgh, having found the spinal marrow to be much inflamed in this disease, recommends an abstraction of blood from the course of the spine by leeches or cupping, and the whole length to be afterwards covered with a blister. This treatment, with anodynes and attention to the bowels, has succeeded in the Doctor's practice. Enveloping the body with a warm vapour, strongly impregnated with opium and hemlock, lately recommended by a German physician, is a plausible mode of treatment.

The cerebral system being often disturbed by irritation of the stomach or intestines, it will also be advisable to empty the intestinal canal by a strong dose of the cathartic extract and calomel, both by the mouth and clysterwise, which should be frequently repeated. As the exhibition of opium will retard the action of purgative medicines, instead of administering it by the mouth, it might answer as well, and probably better, if the body were immersed in a strong solution of opium in luke-warm water. And as it is in the *commencement* of this disease that

* The grey precipitate of mercury and cinnabar are generally employed for this purpose; but calomel will answer as well.

† Some surgeons recommend stockings and a flannel waistcoat, fumigated with mercury, to be worn next the skin, with the view to produce mercurial effects, both locally and on the constitution, without the fatigue and other unpleasantness of rubbing in the ointment.

remedies are to be employed with a *probability* of success, medical aid should be procured as early as possible.

OF TIC DOULOUREUX.

This disease consists in a painful affection of the nerves of the face; and, of all the chronic diseases to which the human frame is subject, it is the most distressing. It is fortunately of rare occurrence. Its most frequent seat is the nerves of the cheek just below the orbit of the eye, the end of the nostrils, the upper lip, and the teeth and gums. Sometimes the nerves of the lower jaw are principally affected. From the connection between the branches of the nerves of the face, the pain often extends to the tongue, ear, and over the face.

CAUSES. — It has been attributed by some to a cancerous acrimony; but as cancer has never been known to occur in people subject to the disease, there can be no foundation for such supposition. It, no doubt, arises from diseased structure of nerves.

TREATMENT. — The external application of anodyne and stimulating liniments, blisters behind the ears, bleeding by leeches, mercurial inunction, and electricity, have, in some instances, been found to palliate the sufferings of the patient; but, in others, they have not even produced the slightest mitigation: nor has the internal use of the usual nervous medicines, as valerian, camphire, opium, and Peruvian bark, been productive of great success. Shaving the head, and washing it with cold water twice a-day, and placing the head for two or three minutes under a stream of cold water, three or four times a-week, I have lately known to succeed in two cases which resisted the usual means.

Several cases of this disease, cured by the long use of hemlock, have been lately published. In the many trials I have known made of it, it failed to prove of the least advantage; and, in every instance, the dose was gradually increased to the same extent. Like many other diseases, it will terminate spontaneously, when the medicine the patient happens to be taking at the time obtains the credit of the cure.

The extract of the henbane, in the dose of three grains, three times a-day, has been administered in the form of a pill, in some cases with success.

Dr. Haighton, finding that a temporary relief was obtained by compressing the suborbital nerve, was induced to divide the nerve; and, in several instances, this operation has succeeded in his, and also the practice of others. Mr. André, a surgeon at

Versailles, had before cured this complaint by burning the nerve with caustic, and by excision. — Dr. Haighton has given a drawing, in the Medical Researches for 1798, which shows the exit of the suborbital nerve and its branches, accompanied with precise directions where the incision should be made. The great severity and obstinacy of the disease can only justify the operation.

People subject to increased irritation of the nerves of the face, should pay particular attention to the state of the digestive organs, for nothing tends more to keep up nervous irritability than indigestion. (See INDIGESTION.) The use of a double flannel night-cap, with flaps to pass over the cheeks, &c. cover the chin and neck, have been found generally beneficial.

This complaint being evidently confined to the nerve, the use of the electrical brush, by exciting a proper action of the nerve, appears to me very likely to prove a powerful auxiliary.

In the 14th number of the Monthly Gazette of Health, an interesting article appears on the treatment of this distressing disease, by the Editor of the *Gazette de Santé de Paris*, and many new remedies are recommended, as the chlorine, &c. which, it seems, have been lately employed in France and Germany with success. In the 53d and several subsequent numbers of the Gazette of Health, several cases are published which were cured by the sub-carbonate of iron, in the dose of a scruple to a drachm twice a-day, made into a bolus with the conserve of the Seville orange-peel. On the efficacy of this remedy, in the cure of tic douloureux, Mr. Hutchinson, a scientific and experienced surgeon of Southwell in Nottinghamshire, has lately published a treatise.

OF THE TOOTH-ACHE.

This well-known disease generally arises from the exposure of the branches of the nerve of the tooth to cold air or acrid matter, in consequence of caries. It is, however, frequently occasioned by inflammation of the membrane lining the socket, in which case the tooth is a little elevated, seldom carious, very painful to the touch, and attended with a throbbing pain, which often extends to the neighbouring teeth. This latter kind generally terminates in the formation of matter, commonly termed a gum-boil.

When the tooth is carious, its extraction may, in some instances, be advisable, which, when properly managed, is attended with considerably less pain than a severe paroxysm of the tooth-ache.

When the decay of the tooth is evidently *constitutional*, its removal is not in all cases to be advised, as the same diseased action will very probably go on in another tooth. It is a prevailing opinion with surgeons and dentists, that a bad tooth will contaminate the one next to it; but in this instance, it will be the means of preserving the others sound.

When tooth-ache is *inflammatory*, in which case the tooth is generally sound, the cure should be attempted by extracting blood from the gum by leeches or scarification, which, with the use of an aperient medicine, and the Antimonial Febrifuge Powder, as directed, No. 37, will probably remove the cause; if, however, it should prove obstinate, a blister may be applied behind the ear, and the scarification or application of leeches repeated.

The angustura bark powder, in the dose of fifteen grains, taken every four hours in a little water, is much recommended as a remedy for tooth-ache. When it is entirely nervous, or arises from a disordered state of the stomach, I have known this medicine to succeed in curing it in a few hours.

The violence of pain may in all cases be mitigated by the application of ether and laudanum, by means of lint. The mouth should be previously rinsed out with warm water, to remove any acrid matter that may be lodged in the cavity of the tooth. A pill of camphor and opium, introduced into the hollow of the tooth, is a popular remedy; as are also the oils of cloves, thyme, and pellitory of Spain. The exclusion of the atmospheric air, by filling the cavity with a mixture of gummastic and white wax, or a little lint, will not only prevent the recurrence of tooth-ache, but often suspend the progress of caries.

The tincture for tooth-ache recommended by Mr. Perry, of Farnham, I have known employed in several instances with success. Mr. Hertz, in his popular Treatise on the Management of the Teeth, speaks highly of the uniform effects of this tincture in curing the tooth-ache.

The effect of fear on an acute tooth-ache is remarkable; the sight of the instrument for extracting the tooth often giving perfect relief, even when the pain has arisen from a carious tooth.

“ Of all animals (observes Mr. Hertz, in his late Familiar Dissertation of the Teeth), man is the most subject to disease of the teeth; and it is strange that a decay of this very useful part of the body should take place in young people, apparently in a perfect state of health. The gums, by the firmness of their texture, support the teeth in their sockets; and, being also abundantly supplied with blood-vessels, the teeth, and particu-

larly their external coats, termed enamel, derive their nourishment from them. Hence it must appear clear, that on the healthy state of the gums depends the health of the teeth. Indeed, in all cases of caries of a tooth, we uniformly find the surrounding gum either diseased, abraded, or detached from the teeth, by the use of some pernicious tooth-powder, or hard brush. The matter that collects on the teeth, termed tartar, is evidently a morbid secretion from the gums, in consequence of their spongy structure, or of being separated from the teeth, the latter of which is the most frequent cause. The brush and powder employed for the purpose of removing the matter, both tend to aggravate the evil, by abrading the gum as well as the enamel of the teeth, and by the spreading of the hairs of a brush, the gum is detached from the teeth, and irritated. Hence people who are in the habit of using them are under the necessity of repeating the operation every morning, in order to keep them clean.

“ The teeth receiving their nourishment from the gums, a diseased state of the gums, or their detachment from the teeth, sufficiently accounts for caries or unhealthy appearance of the teeth. I therefore advise people to pay more attention to the state of the gums; and instead of cleaning the teeth with powder and a hard brush, to wash the gum gently, internally as well as externally, every morning, or three times a week, with equal parts of tincture of rhatany-root and water, by means of a piece of sponge fastened to an ivory handle. This, by constringing and strengthening the gum, will not only render the teeth more firm in the sockets, but effectually preserve them from caries and tooth-ache, and prevent the accumulation of tartar. The teeth may also be gently rubbed with the same sponge and diluted tincture of rhatany, with the surface covered with the prepared charcoal of the areca nut. A hair brush should not be employed but when the tartar, in consequence of neglect, adheres too firmly to the teeth to be removed by the sponge. When a hair brush is employed, care should be taken that the gum be not irritated by it.” (See Prepared Charcoal, page 94.)

Those who follow these directions will have no occasion to employ a dentist. Those that are in the habit of using a hair brush, and the mineral tooth powders of dentists, and stimulating washes of tincture of myrrh, &c. have the edges of their gums tumefied and tender; while the gums of those who do not use them, and who have the soundest teeth, are nearly level with the surface of the teeth.

Ricketty and scrofulous children are very subject to caries of the teeth. In those cases topical management will be of little

avail, unless the state of the constitution be corrected. (See RICKETS and SCROFULA.)

Nothing is more injurious to the enamel of the teeth than sugar or sweetmeats, particularly in ricketty or scrofulous subjects.

Under the head of Prepared Charcoal, page 94, some further observations on tooth-powders, and explicit directions for their use, are given.

People subject to irritation of the nerves of the teeth and jaws should pay particular attention to the state of the digestive organs (see INDIGESTION), and keep the head warm during the night, by means of the flannel cap recommended for the tic douloureux.

OF TYPHUS, OR PUTRID FEVER.

This disease is likewise named *malignant, camp, gaol, pestilential*, and when attended with livid spots, *petechial* or *spotted* fever. It occurs most frequently in autumn and the end of summer, when the days are hot, and the nights cold and chilly.

SYMPTOMS. — It commences with pain in the head, vomiting, slight shiverings, intense and permanent heat, great thirst, irregular pulse (being sometimes dense and hard, and at others quick), but small; while the arteries of the temples and neck often appear to beat with increased force, with flushing of the face, redness of the eyes, denoting a considerable determination of the blood to the head. An increase of the fever is observable every evening; and in a few days the patient becomes delirious, the tongue dry, and of a blackish or livid appearance, attended with great prostration of strength, and an offensive breath. The delirium becomes more constant, and at length changes to a stupor; an eruption of livid or purple spots sometimes appears: the stools at this period are blackish, which, as well as the urine, emit a disagreeable odour, and sometimes are discharged involuntarily. There is also great anxiety about the heart, and great inclination to sigh, sometimes attended with a discharge of blood from the nose, gums, intestines, or with the urine. A copious and obstinate purging, cold clammy perspirations, and hiccup, precede its fatal termination.

CAUSES. — This fever does not appear to be infectious; it is sometimes epidemic, from some atmospheric or terrestrial cause.*

* It is probably often the consequence of some diseased condition of the part of the earth on which it occurs; for putrid fever, attributed to contagion, makes an equally rapid progress where guards have been placed, and high walls have been built, as in Russia, &c. to prevent communication; and some instances have occurred of a great part of Europe, Asia, Africa, and America

The characteristic symptoms of the disease arise from the constitution of the patient, and are not the effect of any specific poison: hence, what will produce inflammatory fever in one constitution will produce typhus in another. The difference between these two fevers is, that in typhus the cerebral system is in a morbid degree of irritation, while in inflammatory fever the sentient power of the brain is very slightly affected. In consequence of the disturbed state of the brain and nerves, a wonderful degree of general debility ensues, attended with a disposition in the fluids and solids to decomposition or putrefaction.

The first symptoms, as the acute pain in the head, the turgid state of the vessels of the eyes, and the increased action of those in the neck and temples, the disordered state of the mind, the deprivation of sleep, and affection of the whole nervous system, indicate an inflammatory excitement of brain, which is confirmed by the examination of those who have died of this fever.

TREATMENT. — This disease, when once established, generally runs its course in defiance of medicine, and whether it terminates fatally or otherwise, will in great measure depend on the natural constitution of the patient; hence it is of great importance to check the progress in its onset: for this purpose, abstraction of eight or ten ounces of blood from the temporal artery, or by cupping, is proper, after which a dose of Emetic Tartar, No. 35, should be given, which, by evacuating the stomach and bowels, producing an equal distribution of blood over the body, and promoting the different secretions, generally succeeds in abating the symptoms, if it should fail effectually to check it. If the pain in the head should continue, the scalp should be shaved, and a blister applied over it, and also leeches to the temples, and the feet kept warm by frequent immersion in warm water. The saline mixture should be given in a state of effervescence as recommended under the head of Crystallized Acid of Lemon, No. 22, or a table-spoonful of yeast twice a-day. Fixed air, administered in this manner, affords more relief than any other medicine; and, in several instances, has proved an effectual remedy — not by counteracting putrescence, as many have imagined, but by cooling the body, abating thirst, and diminishing the morbid irritability of the system. The room should be spacious, well ventilated, and often fumigated, as

suffering from similar fevers nearly at the same time. The partial appearances of pestilential fevers, and the frequent occurrence at the same place, are proofs of some local diseased state of the earth. The French historian Mezeray states that in the kingdom of Cathay, where a very fatal fever raged for some time, the vitality of the vegetables (from the grass to large trees) was destroyed.

directed, page 96. Washing the body with *cold* vinegar, when the skin is hot and dry, and the application of it to the scalp and forehead, by means of folds of linen, have proved very beneficial, probably by conducting superabundant heat from the body, and by exciting the action of the skin. The application of cold water or ice to the head has been much extolled in this disease, but *cold* vinegar is certainly preferable. The patient may likewise smell a sponge moistened with the Acetic Acid, No. 38, at a short distance from the nostrils; a little of which may likewise be sprinkled over the quilt of the bed, or evaporated in a saucer (over the blaze of a candle), which, in *small* rooms, will supersede the necessity of the more elaborate process of fumigation. The smelling of the volatile salt in this case is very improper, as it is apt to increase the delirium. Yeast, in the quantity of a table-spoonful every three or four hours, has been administered in this fever with great success by many physicians in the country, who attribute its salutary effects to the fixed air it contains: much of the advantage derived from it probably arises from the peculiar anodyne property of the hop, with which it is strongly impregnated. On account of some brewers in London substituting other bitter productions for the hop, the yeast procured from them has not been found to answer in such cases. The hop is more efficacious in allaying the nervous restlessness attendant on this fever than any other anodyne. The food should be principally weak veal broth, thickened with a little arrow-root or oatmeal, and the drink mint-tea or barley-water, acidulated with lemon-juice.

If, on the fifth or sixth day of the disease, the patient be evidently in a sinking state, a more nutritious diet may be allowed, and the strength of the patient supported by the Camphorated Bark Mixture, No. 67. If the brain be not much disturbed, and the fever evidently depends on debility, this treatment will prove very beneficial, and the patient will appear very considerably refreshed by every dose of the medicine.

If purging should come on so as to reduce the strength of the patient, the Cretaceous Mixture, No. 64, should be administered, and the Anodyne Lavement, No. 96, or the Nutrient Lavement, No. 99, if it continue violent.

The tongue becoming more clean and moist, and the countenance more animated, are very favourable prognostics. The dark foul state of the surface of the tongue often extends throughout the intestinal canal, which being thrown off as the patient recovers, produces purging, which in such cases should be moderated, and not entirely checked. See *Lime-water*, page 87.

When treating on inflammation of the brain, I observed, that this disease was often mistaken for putrid fever, and there noticed a well marked case of the kind, which was so treated by a country apothecary; the disease, of course, terminated fatally, and I availed myself of the opportunity of examining the state of the brain.

The following case is a proof that inflammation of the brain may be mistaken for typhus. An experienced practitioner was requested to see a patient affected with fever; on his arrival, he found the patient delirious, and labouring apparently under symptoms of debility; and from its being epidemical in the neighbourhood, he pronounced it typhus fever, and accordingly administered cordial medicines. The symptoms of delirium afterwards increased, and the patient in a fit of frenzy, divided his wind-pipe with a razor, by which he lost nearly two quarts of blood before surgical assistance could be obtained. The surgeon approximated the edges of the wound with a ligature and proper bandages, and gave his opinion that the loss of blood, under such circumstances, would prove fatal; but, to his great surprise, the patient speedily recovered, and the wound healed on the first intention, so that the patient, in this instance, really cured himself by cutting his throat.

The typhus fever appears sometimes to commence in the brain, without disturbing the constitution for three or four days; at other times the stomach and bowels are first attacked, and the head is not affected for some days afterwards. If its progress be not checked in the first instance by an emetic, an aperient, and sudorific medicine, the office of the physician is to attend to the indications of nature, and to take care that no injury be done to the patient by officious nurses or friends. Routine physicians often employ, in the first instance, wine and cordials, which, by increasing the irritation of the brain, will destroy that chance of recovery which depends on the natural strength of the constitution.*

* Wine, and even brandy, in cases of extreme debility, may be necessary to keep up the vital powers; but their indiscriminate use has no doubt destroyed the lives of thousands. The fatality of the disease may in some degree be attributed to maltreatment; for the idea prevailing that it is a putrid disease, the first thing, after giving it a name, is to have recourse to the free exhibition of wine and cordial medicines. Even phosphorous, with brandy, was some months ago recommended as a remedy for typhus, and was continued by the advocates for the stimulating plan till they found it killed ninety-nine out of a hundred!! The following cases will throw some light on the important improvements made by the moderns on the treatment of putrid fever:—Two sons of an eminent solicitor were affected at the same time with fever, which was pronounced by a sapient physician to be typhus. Bark

For the means of purifying the air of the chamber, see page 96. OR DRAUGHTS TAKEN DURING HIS DISEASE.

OF VOMITING.

When vomiting is the effect of poisons taken into the stomach, it requires the treatment already recommended for poisons, page 101.

Vomiting is a very common attendant on pregnancy; and the most healthy women, as well as the weak and delicate, are equally subject to it: the symptoms require, however, different treatment in those opposite states. When it is attended with fulness of the vessels, and determination of blood to the brain (evinced by pains and giddiness in the head, flushing in the face, and bleeding at the nose), blood-letting, with gentle purgatives, as the Epsom Water, No. 2, taken every morning, and a spare diet, will afford relief; but when it occurs in a delicate woman, and is attended with symptoms of debility, such as languor and profuse perspirations, a nutritious but light diet, with a moderate use of port wine, will prove very beneficial. Two table-spoonsful of the following mixture may likewise be taken two or three times a-day: —

Take of infusion of roses, seven ounces; Epsom salt, two drachms; compound tincture of cardamom seeds, six drachms. — Mix.

Moderate exercise will, in both cases, be necessary. Emetics should not be administered without the sanction of a skilful practitioner, as their injudicious exhibition may produce abortion. When vomiting arises from *weakness* or *irritability* of the stomach, or acidity, it should be considered as a symptom of indigestion, and as such treated. When the matter thrown up is bilious, the Neutral Salts, No. 2, and the Diluted Vitriolic Acid, No. 18, will be proper, to which a few drops of laudanum may be added in case of much straining. When vomiting is the consequence of hard drinking, diluents, as tea and coffee, with a dose of Magnesia, No. 1, or Salt of Wormwood, No. 21, will prove the most efficacious. When the cause is not evident, the saline draughts, in a state of effervescence, (see No. 22,) —

and wine were accordingly prescribed. The eldest took every thing that was offered to him, while the youngest obstinately refused to take either wine or medicine, but drank freely of cold water, and the small quantity of wine and medicine which was forced down his throat, was soon ejected. The one that took the medicine died, and the water drinker recovered!!

with the occasional use of small doses of rhubarb and laudanum, may be employed, and an anodyne plaster applied to the pit of the stomach.

Vomiting is often attendant on organic disease of the stomach, schirrosity of the pylorus, or ulceration of the inner coat of the stomach, when the matter brought up is generally very slimy; in such cases, two or three grains of extract of poppies, or one of purified opium, taken twice a-day, with linseed-tea and lime-water, will afford relief.

Vomiting is generally a symptomatic affection, when the cure will of course depend on the nature of the primary disease.

Vomiting of children frequently arises from their being over-fed, when the ejected matter is for the most part sour. A little magnesia, or prepared natron in mint-water, will in such cases, prove beneficial. If the stools be green, or of a clay colour, a gentle emetic dose of ipecacuan powder will be necessary. See **FEEDING OF CHILDREN.**

OF VOMITING OF BLOOD.

When blood is discharged into the stomach, and brought up by vomiting, it is thus termed; and when it proceeds from the lungs, although its expulsion be assisted by vomiting, it is termed *hæmoptoe*, or *spitting* of blood. In describing the latter affection, I noticed in what manner the source of the blood thrown out from the mouth might be ascertained. When the blood is brought up without coughing, if of a black and grumous appearance, and mixed with the contents of the stomach, there can be no doubt that it proceeds from the stomach.

CAUSES. — It generally arises from the suppression of accustomed evacuations, as the menses or piles.

TREATMENT. — If the patient be of a plethoric habit of body, the loss of eight or ten ounces of blood from the arm will be necessary; after which three table-spoonsful of the following mixture should be taken every four hours: —

Take of red-rose leaves, dried, two drachms; infuse in half a pint of boiling water for three hours, then strain, and add diluted vitriolic acid, two drachms; tincture of rhatany root, half an ounce. —

Mix.

It will likewise be proper to produce a determination of blood to the skin, by small doses of ipecacuan powder, combined with opium, as two grains of the former with half a grain of the latter,

or eight drops of laudanum. With the same view, the feet should be put into warm water for ten minutes. If these means fail to check the bleeding, six or eight grains of alum, in powder, may be added to each dose of the mixture, and a blister applied to the pit of the stomach.

Thin gruel will be sufficient both for food and beverage, which should be taken cold. If it arise from suppression or retention of the menses, after the discharge has ceased for some days, the remedies already recommended for these complaints should be employed, to produce a proper determination to the womb. (See GREEN SICKNESS, and SUPPRESSION OF THE MENSES.)

When the cause is a suppression of the piles, the occasional use of an active purge, as the Antibilious Aperient Pills, No. 46, or a lavement of gruel, with a drachm of socotrine aloes, and a table-spoonful of salt, will afford relief, by reproducing the piles.

OF THE WATER-BRASH.

This disease is very prevalent in Scotland and Ireland, but rarely occurs in England. It chiefly appears among the lower orders of people, and more commonly at middle age, though, sometimes, old people are subject to it. It affects females oftener than males, and, of married women, (unless during pregnancy,) the barren are most subject to it. It consists in a discharge of clear water by vomiting or eructations, attended with a burning heat about the pit of the stomach. It generally comes on by fits, which are most frequent when the stomach is empty, as in the morning and forenoon. The pain is considerably abated by eructations and vomiting, but it does not entirely terminate for some time.

CAUSES.—This disease arises from morbid irritation of the pancreas, generally produced by the intemperate use of ardent spirits, particularly whiskey. Passions of the mind, and cold applied to the lower extremities, are often exciting causes.

TREATMENT.—The spasms of the stomach may be relieved by laudanum and æther, the dose of which must be proportioned and repeated according to the violence of the fit; afterwards the use of the Aromatic Tincture of Rhatany Root, or Compound Tincture of Camomile and Ginger, as directed, No. 7, avoiding costiveness, by the occasional use of the Aperient Pills, No. 46, with a generous diet, and abstinence from spirituous and fermented liquors, will effect a cure.

OF WARTS.

Warts are organized bodies, and probably a kind of parasitical life, like the fungus of a tree. Whatever proves destructive to the life of parasitical animals, will, by frequent application, destroy warts, such as the muriated tincture of steel, or solution of arsenic.

When a wart has a narrow root, it may be easily removed by ligature; but, when the basis is broad, it may be destroyed by rubbing the surface every second morning with a little lunar caustic, till it entirely disappears.

The influence of the imagination in destroying warts is very extraordinary, many instances having occurred of their gradually disappearing after the use of a charm, which could operate only on the mind. It has been said, that even when the person had no confidence in the mystic remedy, it has succeeded. The irritation which produces these excrescences may be allayed through the medium of the mind.

OF WATERY HEAD.

This disease is almost peculiar to infants, and chiefly those of a scrophulous or ricketty habit. It rarely occurs after the fourteenth year.

It commences with slight pain in the head, generally across the brow: as the effusion of water increases, the child becomes affected with nausea, sickness, starting in the sleep, screaming, and other disorders of the animal functions, as convulsions, &c. without any apparent cause; at length the brain becomes so compressed as to produce dilatation of the pupils of the eyes, a variable pulse, with evident stupor. It is commonly fatal.

CAUSES. — The effusion of serum in the ventricles of the brain is generally considered to be the consequence of inflammation, but it is more probably the effect of sub-irritation. The capacity of the skull being adapted to the brain, an enlargement of the skull, which takes place in a ricketty subject, would be productive of an effusion of serum, or what is vulgarly termed a watery head. An effusion of serum in the tunica vaginalis, producing hydrocele, or in the cavity of the abdomen, occasioning ascites, may with equal propriety be attributed to inflammation, as an effusion of serum in the ventricles of the brain.

TREATMENT. — This disease is so gradual in its progress, that its nature is not evident till the effusion of serum is so

considerable as to render all efforts to produce its absorption ineffectual. The most active means must be employed to stimulate the absorbent vessels of the brain, for the removal of the accumulated serum; for this purpose a perpetual blister over the scalp, gentle electric shocks through the head, and the exhibition of mercury, are the most powerful remedies.

One grain of calomel may be given in a little jelly three times a-day, or a scruple of the strong mercurial ointment may be rubbed on the inside of the thigh or arm twice a-day, till it enters the skin. Some practitioners recommend the ointment to be rubbed over the blister for the purpose of being more speedily taken up into the system; and, if the patient can bear it, it is certainly to be preferred. Five drops of the muriated tincture of steel may likewise be given in a little water two or three times a-day, and the strength of the system supported by beef-tea, arrow-root, and a little wine.

In every other part of the body but the brain, absorbent vessels may be demonstrated; but in the brain, they cannot be discovered by the most minute examination; but as effusions of blood in the brain are absorbed, there can be no doubt of their existence in that organ. Being less abundant than in any other part of the body, is probably the reason that the disease is generally fatal.

OF WEN.

This disease consists in an enlargement of the thyroid gland, situated on the front of the neck, in consequence of disease or debility of the absorbent vessels, or increased action of the secering vessels of the part. Several remedies have been suggested for the cure of this disease, of which the burnt sponge has answered best. Lozenges of this medicine were much recommended by the late Dr. Cheston, an eminent physician of Gloucester, and other respectable physicians have found this form to answer best; the advantages of which they attribute to its gradual solution in the mouth. Rubbing the surface of the tumour every night with salt, by rousing the action of the absorbent vessels, is a more plausible remedy, and has succeeded in removing glandular accumulations of considerable magnitude. The hand of an executed criminal, by producing a considerable sensation on the mind, has on the same principle, succeeded in some instances. A dead toad hung round the neck is, in some countries, a favorite remedy.

In the fourth number of the *Monthly Gazette of Health*, a

few cases of this disease are given, which were cured by mercurial friction.

In some cases, the source of its nourishment may be nearly cut off, by applying ligatures to the principal arteries that supply it with blood, which, when the vessels are superficial, (as is often the case,) is neither a painful nor a difficult operation.

The tincture of iodine has been lately much recommended by many eminent practitioners of Germany, Italy, and France, as a certain remedy for wen. In this country it has had an extensive trial, and many cases of large wens, of long standing, have been published, which were effectually dispersed by it. The dose is from 20 to 35 drops, twice a-day, in a wine-glass of marshmallow-root decoction. Some writers recommend the tumour to be well rubbed every night with an ointment of the hydriodate of potass.

There are several species of tumours that form in different parts of the human body, which derive their names from the nature of their substance. I some time since removed one from the back of a carpenter, (Mr. Thomas,) at Abbey Tintern, in Monmouthshire, which weighed, after it was freed from blood, sixteen pounds twelve ounces. It had been gradually growing nearly twenty years, and had latterly, from its magnitude and weight, become so troublesome as to prevent him from following his occupation, which he has since pursued with greater ease than he had done for many years. The removal of a wen (which is always situated on the anterior part of the neck) by the knife is, on account of the great blood-vessels connected with it, a dangerous operation.

OF WHITES, OR FLUOR ALBUS.

This disease consists in a slimy or puriform discharge from the passage leading to the womb, termed Vagina. It varies in appearance, consistence, and quantity, in different persons. It generally proceeds from the vagina, but sometimes from the womb itself. Women of an erysipelatous habit, generally termed scorbutic, are most subject to it, and in them it proves very obstinate.

CAUSES. — It is the effect both of relaxation and inflammatory excitement. Frequent miscarriages, difficult labour, and debility, are noticed as causes of this disease.

TREATMENT. — When it arises from relaxation, the Tonic Pills, No. 82, generally succeed in affecting a cure.

Cold bathing, or the local application of cold water, by means of a *bidet*, is a very important remedy for this disease, and should

be used every morning, provided the patient be free from cough or difficulty of breathing, and not subject to a determination of blood to the brain.

If the discharge continue after the due employment of these means, an astringent lotion may be made use of with advantage, as the following: —

Take of the pomegranate-rind, bruised, three drachms; boil in a quart of water to a pint and a half; then strain, and add alum, a drachm and a half. To be injected by means of a female syringe.

The due employment of these remedies, with moderate exercise and a nutritious diet, will generally succeed in curing the disease.

If the stools are of a pale clay or very dark colour, or the patient be subject to erysipelas, or eruption of the skin, one grain of calomel should be taken every other night for about ten days or a fortnight.

When fluor albus occurs in a person of a robust and sanguine habit, it may be considered of an inflammatory nature; in which case, instead of tonic medicines above recommended, the patient should take every, or every other morning, two drachms of the Epsom salt, as directed, page 9, and ten grains of nitre powder, with fifteen of gum-arabic powder, in a glass of barley-water or almond emulsion, three times a-day; which, with a low diet, (free from all kind of stimulants,) will succeed in curing it. To these remedies, the application of cold water, by means of the *bidet*, will prove a powerful auxiliary.

If the Epsom salt should occasion more than one or two motions in the course of twenty-four hours, the dose should be diminished or taken less frequently.

When the discharge is of an *ichorous* nature, and of a *dark* or *yellowish* colour, and attended with *pain* in the region of the womb, or with irritation, burning heat, difficulty or heat of urine, troublesome itching, a sense of bearing down, and a frequent inclination to go to stool; pains on the approach, or during the time of menstruation; and particularly if pieces of coagulated blood (generally termed clots) are discharged; some *organic* disease of the womb may be suspected, especially if they occur about the time of the cessation of the menstrual discharge; in which case, the patient should lose no time in availing herself of the advice of an experienced surgeon.

The buchu leaves have lately been introduced as a remedy for this disease, and in many cases of long standing, the tincture, in the dose of two tea-spoonsful in a wine-glass of the decoction of marshmallow root, has succeeded in curing the

disease and improving the general health. In obstinate cases it may be given in an infusion of the leaves, in lieu of the decoction of the marshmallow root. This remedy, on account of allaying morbid irritation, is applicable to every species of *fluor albus*.

The diet must depend on the general health of the patient. If she be weakly, and of a delicate constitution, it should be nourishing and easy of digestion, such as *blanc mange*, and the vegetable and animal jellies, with a small portion of meat; a little good Port or white wine may also be allowed, but water should be adopted in lieu of malt liquor: but if the complaint be attended with much irritation or pain on making water, it will be advisable to avoid pepper and much salt, but not otherwise. Warm diluent liquors, as tea and coffee, and the use of spirituous liquors, are very improper, and will certainly counteract the effects of medicine.

OF WHITE SWELLING.

This disease is the consequence of a tender structure or debility of the absorbent vessels of the ligaments of the joints, which constitutes what is termed *scrofula*. (See *SCROFULA*, page 338.) It is often brought on by accidents, as bruises and strains, and sometimes by frequent attacks of rheumatism. The knee, ankle, and elbow-joints, are generally the seats of this disease. The *scrofulous* white swelling begins with acute pain in the interior part of the joint, which is sooner or later succeeded by a gradual enlargement of the ends of the bones forming the joint, with a distention of the veins of the skin surrounding it.

TREATMENT. — The object of topical management is to prevent the formation of matter, by the application of leeches or cupping, which should be repeated every, or every other day, according to the urgency of the case; the whole joint should then be kept continually wet and cool with the following lotion, by means of folds of old linen: —

Take of crude sal ammoniac, half an ounce; dissolve in spring water, one pint and a half; then add vinegar, half a pint.

Two drachms of either of the Neutral Salts, No. 2, should be taken every morning, and the medicine already recommended for the king's evil, to strengthen or invigorate the absorbent system, and improve the general health.

When the part is in a quiet state, — *i. e.* free from pain, and in a cool state, — friction with the hand is often very beneficial, by rousing the action of the absorbent vessels, and thereby producing a mutation of the diseased structure. The friction should be continued for two or three hours twice a-day, with a little hair-powder to prevent irritation of the skin. If the friction produce pain or inflammation, it should be discontinued, and a small blister applied to each side of the joint, the discharge of which should be kept up by dressing them every morning with the Savin Ointment, No. 44; for which purpose, the thin skin of the blister should be entirely removed. The limb should be kept perfectly quiet, and, when free from pain and inflammation, the joint may be gently moved once a-day, to prevent adhesion and consequent stiffness. By the external irritation and discharge of blisters continued for a length of time, with the constitutional treatment recommended for scrofula, many limbs have been saved, which by a hasty surgeon would have been condemned to the knife. When the blisters are healed, the plaster of gum ammoniac and cicuta may be applied with advantage: and if there be a disposition on the part to recurrence of the mischief, an issue will also be necessary. The same local treatment is proper for the enlargement of a joint from rheumatism, which, if attended with fever, requires the constitutional remedies as recommended for acute rheumatism.

In cases of chronic enlargement of joints, and of ankylosis, or stiff joints, Mr. Summers, an eminent surgeon of London, has been very successful, by a mode of treatment which was first employed by himself. It consists of pressure with the end of the thumb on different parts of the joint, and on the muscles connected with it, with a motion of the limb, which, by bringing the muscles into action, and more under the influence of the mind, promoting absorption of the deposited lymph, and separating adhesions, has succeeded in many cases which had been declared hopeless by hospital surgeons.

OF WHITLOE, OR FELON.

This disease consists in an inflammatory swelling of the end of a finger, the pain and obstinacy of which depend on the part attacked: if the skin be only affected, the pain is trifling, and after the effused fluid is discharged, it soon heals, without endangering the nail; but if situated in the membrane beneath the skin, which is generally its seat, the symptoms are more violent; and if the membrane covering the bone be affected, the

inflammation often extends to the hand, and the pain up the arm. The lymphatic vessels, and the gland in the arm-pit, are also often inflamed; in this latter case, if the disease advance to suppuration, the bone is generally rendered carious.

CAUSES. — It frequently occurs from external violence, particularly from punctures and bruises; but it happens more frequently without any evident exciting cause, in which case it is probably connected with a bad habit of body.

TREATMENT. — As the matter that forms in this disease is generally of that acrid nature as to corrode the soft parts, and even the bone, it will, in all cases, be advisable to prevent suppuration, by applying four or five leeches, and encouraging the bleeding by immersing the hand in warm water after the removal of the leeches: when the bleeding has ceased, the finger should be wrapped up in soft linen, and frequently moistened with spirit of wine. The Aperient Mixture, No. 62, taken as there directed, will also be necessary; and if the patient be of a plethoric habit of body, or the arm much inflamed, six or eight ounces of blood should be taken from the arm. If these means should fail of dispersing it, an incision should be made into the part, nearly to the bone, which will effectually prevent suppuration, and thus preserve the nail and the bone.

When an infusion of serum has taken place, it should be let out as soon as possible, to prevent an extension of the internal mischief, particularly if deep-seated. A poultice may then be applied, which, with the occasional use of a little brandy, will effect a cure. But so many untoward circumstances happen in those cases, such as caries of the bone, the formation of fungus under the nail, &c. that it will always be advisable to apply to an experienced surgeon, whose timely assistance will not only prevent much mischief, but save the finger.

OF WORMS.

The species of worms that are most prevalent in the human body are three, viz. *ascarides*, or small round and short worms, which chiefly occupy the lower intestine; the *teres*, or round and long worms *, which are generally seated in the small intestines

* The round long worm being generally considered to be of the same nature as the earth-worm, I shall briefly notice in what their difference consists. On examining their outward appearance with attention, the human worm will be found more pointed on both extremities than the common earth-worm. The mouth of the human worm consists of three rounded projections, with an intermediate cavity; whereas the mouth of the earth-worm

and stomach; and the *tænia* or tape-worm, which, for the most part, possesses the whole tract of the intestinal canal.

SYMPTOMS.—The symptoms denoting the existence of worms are common to the different species, viz. indigestion, with a variable appetite: foul tongue; offensive breath; hard, full, and tense belly, with occasional gripings and pains about the navel; heat and itching sensation in the rectum and about the anus; the eyes heavy and dull; itching of the nose; short dry cough; grinding of the teeth *; and starting during sleep, attended often with a slow fever.

CAUSES.—As worms are generally found only in persons of weak digestive organs, indigestion may be noticed, if not the principal cause, at least, as favouring their generation. There is nothing, however, in the economy of animals more involved in mystery than the generation of these parasitical animals. Were they found to live in situations out of the bodies of living animals, one might readily suppose that their eggs were taken into the body with the food or drink, and there gradually evolved into animals: this, however, is not the case; they are

consists of a longitudinal fissure, situated on the under-surface of a small round head. Upon the under-surface too of the human worm there is a large semi-lunar fold of skin, into which the head retreats, and out of which it is elongated, which is entirely wanted in the teres. The anus of the human worm is situated on the under-surface a little way from its posterior extremity, and appears like a transverse curved fissure. The anus of the earth-worm is an oval aperture at the very extremity of the worm. The outward covering or skin of the human worm is less fleshy, and not so strongly marked by transverse rugæ as the earth-worm. In the latter there is often to be seen a broad white band surrounding the body of the worm; but, in the teres, this is entirely wanting. On each side of the human worm there is a longitudinal line well marked; in the other worm there are three such lines upon the upper half of its surface, but very faintly marked, so as to be hardly discernible. The human worm has nothing resembling feet, whereas the earth-worm has on its under-surface and towards its posterior extremity a double row of processes on each side, very evident to the eye and finger, which manifestly serve the purpose of feet on the locomotion of the animal. The internal structure of both animals is also extremely different; in the human worm there is an intestinal canal, nearly uniform and smooth in its appearance, which passes from one extremity of the worm to the other. In the earth-worm there is a larger and complex stomach, consisting of three cavities, and the intestinal canal is likewise larger and more formed into sacci than the former; the parts subservient to generation are very different in both; there being in the human worm a distinction of sex, the parts being different in the male and female, whereas the common earth-worm is an hermaphrodite. The human worm depending upon the body it inhabits for a supply of heat, has no powers within itself for its production, and, consequently, is expelled from the body immediately on parting with its heat.

* This strong involuntary action of the muscles of the lower jaw is a proof how much the muscles are affected by irritation in the stomach and bowels, that are connected by branches of a nerve.

evidently incapable of existing for any length of time in any situation, except within a living animal body, which appears to be the proper place for their growth and residence. We might, therefore, be led to another supposition, viz. that they are really formed from the matter contained in the intestines, which previously had no regular organization; but this idea is widely different to all analogy in the production of animals. The origin, therefore, of such animals is a subject of much obscurity. That they are not produced by ovula of animals taken with the food, is not only obvious from their being found in the liver and brain, but from the frequency of another kind of animal, so commonly generated in the kidneys, brain, and liver, named **Hydatids.**

TREATMENT. — The indications of cure are, first, to clear the stomach and intestines of redundant slime, and afterwards to strengthen the stomach and bowels, so as to destroy the disposition to their generation.

The first object is best accomplished by brisk cathartic medicines, as the Basilic Powder, No. 36, a dose of which should be taken every second or third morning, for at least a fortnight, and the Tonic Mixture, No. 77, in the intermediate time. Lime-water being capable of dissolving the mucus in which the worms are involved, may be taken in the quantity of a teacupful, two or three times a-day, during the operation of the Basilic Powder, and with the Tonic Mixture; the Electuary of Tin, No. 86, may likewise be taken every morning and evening.

In domestic medicine, an infusion of Indian pink has been generally employed for the destruction of worms in children, and often with success. The giddiness, stupor, dimness of sight, redness and pain in the eyes, that sometimes affect the patient during the use of this medicine, prove that it should be administered with caution, and not till after safer vermifuges have been tried in vain. The decoction of quicksilver is also a popular remedy, but I conceive equally unsafe.

* There is not the least doubt but hydatids are animals: they have been seen to move when taken out of the liver, and they retain their power of motion for some time when put into warm water. The origin of such animals is extremely mysterious; and when the whole evidence of one and the other opinion is compared together, the grounds for believing that in some orders of animals equivocal generation takes place appears stronger than those for a contrary opinion. Persons who wish to consider those animals more minutely, will find an excellent account of them, published by Dr. John Hunter, in the Medical and Chirurgical Transactions, p. 54.

Powdered rust of iron is a very excellent vermifuge medicine, and where the complexion of the patient is pale, or the system weakly, is preferable to any other; but when the countenance is florid, and the habit evidently plethoric, it is not so proper as the Basilic Powder, No. 36. The powdered rust of iron is recommended by Dr. Rush to be given from five to thirty grains, in a little currant jelly or brown sugar, for children between one and ten years old. "Of all the worm-medicines that I have administered," observes this eminent physician, "I know none more safe and certain than this simple preparation of iron. If ever it fails of success, it is because it is given in too small a dose." Taught by an old sea-captain, who was cured of tape-worm by this medicine, Dr. Rush has given to adults from two drachms to half an ounce of it every morning for three or four days, not only with safety, but with uniform success; the addition of ten grains of granulated tin has been found to increase its vermifuge powers.

The hairy down which covers the pods of cowage, made into an electuary with treacle, is much recommended by Mr. Chamberlayne, surgeon in London: The electuary, in the dose of a tea-spoonful, is said to be perfectly safe, and that two or three doses generally suffice.

The common male fern-root has been much extolled as a certain remedy for the *tape-worm*. The following directions are given for its use:— "Two or three drachms of the powdered root to be taken in the morning, no supper having been taken the night before. It generally sickens a little. A brisk purgative, with a little calomel, (as the Basilic Powder, No. 36,) is to be given a few hours after, which sometimes brings off the worm entire; if not, the same course must be followed at due intervals." For the success of this remedy, it is necessary the root should be *recently* gathered; as after being kept long in the shops, its activity is diminished or destroyed. It should be used recently dug, being brought to a state fit for powdering, by drying in a gently-heated oven, or within the gentle heat of a fire.

Since the publication of the last edition of this work, the spirit of turpentine has been found to be very efficacious in expelling the *tape-worm*: it is given in the quantity of a large tea-spoonful, mixed with a little honey, twice a-day. In some instances the dose was increased to a large table-spoonful.

The *ascarides*, or round short worms, are principally lodged in the lower intestines, and, through being enveloped in mucus, are often very difficult to dislodge. With the use of the basilic powder, it will be proper to inject the following, by means of the lavement syringe: —

Take of the alkaline liquor of iron, three drachms; lime-water, eight ounces. Dissolve the flowers in the lime-water. To be injected warm.

A strong decoction of Indian pink, with common salt, has been recommended by Dr. Clark; and a solution of assafoetida in water and tobacco fumes, by other eminent physicians; to be thrown into the rectum. The muriated tincture of steel would probably prove more powerful, if the worms were not defended from its action by the mucus with which they are so completely invested. Soap lees have been recommended for dissolving the mucus, but it often produces considerable irritation. The repeated use of the basilic powder, with the injection of the solution of steel, as above directed, generally succeeds in destroying them. In the 90th number of the Gazette of Health, a mode of removing these worms from the rectum by manual means is much recommended by a physician of Edinburgh.

PREVENTION.—For the prevention of worms, it will only be necessary to attend to the state of the digestive organs, and to avoid such diet as is likely to derange them, as acid, or unripe fruit, fermented liquors, &c. If the pale or dark appearance of the faeces should indicate a deficiency of the secretion of bile, the patient should take half a grain of prepared calomel at bed-time, for five or six nights; for nothing is more destructive to the life of worms than a proper secretion of bile. (See IN-DIGESTION.)

Children are very subject to an irritative fever from having, been indulged in too great quantities of fruit or acescent food, which is generally attended with the symptoms I have noticed as denoting the existence of worms. This fever has therefore been termed by Dr. Musgrave the *Spurious Worm Fever*; and latterly, by Dr. Butter, the *Infantile Remittent Fever*. Dr. Hunter states, that he dissected "a great number of children who had been supposed to die of fever arising from worms, in whom he did not discover the least appearance of worms." This fever is evidently symptomatic of a disordered state of the digestive organs, and may be cured by a gentle emetic of ipecacuan powder, the occasional use of the Basilic Powder, No. 36, and a little stomachic medicine, as camomile-tea, with the Prepared Natron, as directed, No. 60, which will also prove of service should the fever arise from worms.

No disease offers such a field for the imposition of quacks as worms. Mercury is the basis of all the worm-specifics that have fallen under my examination. The articles with which mercury is mixed to form it into lozenges becoming acid by keeping, the mildest preparation of mercury may be thus converted into a

powerful poison, nearly equal in violence to arsenic ; besides, the mercury not being well blended with the other ingredients, from the quantity that is made at a time, it may, and I know it has happened, that one nut has contained an over-dose of mercury, while another in the same box has scarcely contained any. To these circumstances the many fatal effects that have followed the exhibition of advertised remedies for worms may be attributed.

At the request of several friends of this work, the author has ordered the Basilic Powder to be kept at the Chemical and Medical Hall, 170, Piccadilly, well blended with gingerbread, and carefully divided into nuts, containing twenty grains each, which, in consequence of being well mixed, may be divided into doses proportioned to the age of the patient. In this form it is readily administered to children, and the ginger in the composition corrects its griping quality ; — while the most active part of the medicine, being very ponderous, is frequently lost by being administered in a thin vehicle.

The Abdominal Bandage, made by Messrs. Baker and Son, of Bedford-Street, Covent-Garden, by supporting the bowels, is an excellent preventive of worms. It is also a great auxiliary to tonic medicines, in cases of indigestion and relaxation of the bowels.

If the patient suffer from a determination of blood to the head, or be disposed to apoplexy, this bandage, by compressing the blood-vessels, may be productive of serious mischief.

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